COUNTY BOROUGH OF BOLTON

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDING

31st December, 1958

A. I. ROSS, M.D., D.P.H.,
MEDICAL OFFICER OF HEALTH
HEALTH DEPARTMENT, CIVIC CENTRE, BOLTON
Telephone No. 4200

HEALTH COMMITTEE, 1958-59

The Mayor (Alderman Mrs. E. A. Ashmore, J.P.)

Chairman: Alderman J. A. Childs
Vice-Chairman: Councillor A. Townend

Alderman P. Lowe, J.P.
Councillor Mrs. D. Berry
Councillor A. Bickerstaffe
Councillor J. Brogden
Councillor Mrs. M. Clarke
Councillor J. A. Foster
Councillor W. Glynn
Councillor Mrs. M. Greenhalgh
Councillor A. Hutchinson
Councillor Mrs. F. T. F. Keogh, J.P.
Councillor J. Marshall
Councillor J. R. Monks, G.M.
Councillor Mrs. N. Vickers
Councillor W. Walsh
Councillor A. E. Clarke

Co-opted Members:

Dr. B. Thornley
Mr. W. Crumblehulme
Mr. A. G. Smith

Sub-Committees

Accounts
Personal Services
Baths and Ambulance
Insanitary Areas and Premises
Provision of Dustbins
Appointment of Staff
Smoke Control Areas—Financial Assistance
National Assistance Act, 1948 (Section 47)

INTRODUCTION

During 1958 the work of the Health Department was under the direction of my predecessor, Dr. Ronald W. Elliott, who has now left the post of Medical Officer of Health to take up a similar appointment with the West Riding of Yorkshire. My comments must, therefore, be mainly factual.

The report shows the very wide range of work undertaken by Bolton Health Department, ranging from the environmental services—clean air, clean food, housing—to the personal services under the National Health Service Act—nurses, clinics, ambulances, etc. A comment sometimes made about Health Departments is that in spite of having lost the responsibility for hospitals their staff has increased since 1948, but it will be seen from this report, and especially from the ten-year general review of the working of the National Health Service, that there have been considerable developments since 1948. For example, the work of the health visitor, the district nurse and the home help has increased greatly. The Ambulance Service has also developed. More attention is now being given to clean air entailing more work for the Public Health Inspectors and for the Borough Analyst. Much more is now done for the mentally ill living at home.

From the special review it will be seen that in Bolton there has been full and useful co-operation between the three branches of the services—Local Executive Council, Hospital Management Committee and the Borough Council—and as far as is possible, with three different organisations responsible for health services, they have worked smoothly.

The section of the report dealing with accidents in the home shows that unfortunately there were ten deaths due to coal gas poisoning. Two of these were due to tubes becoming detached from gas fires. The importance of proper gas fittings cannot be over stressed.

Deaths from cancer continue to increase and those due to cancer of the lung in 1958 were double the number in 1949. Heavy smokers of cigarettes should consider carefully whether the pleasures they obtain are worth the risks involved, and adolescents who have not yet started smoking should consider seriously whether they should do so. The importance of the clean air campaign must also be stressed in this connection.

Unfortunately, during the year it was impossible to provide a dental service for expectant mothers and young children, and only special emergency cases could occasionally be treated. This is part of a much wider problem; too few dentists are being trained, and of those trained, too few are working with local authorities.

The attendances at Child Welfare Centres continue to be high. Much valuable work is done by voluntary workers, but more are required and it is hoped that more will come forward. The work is interesting and can be done on any afternoon in the week at the convenience of the individual.

An important new development was the establishment of a weekly mother-craft class at the Civic Centre at which mothers attended by invitation. It is hoped that this service will increase.

A considerable part of the time of the medical, nursing and clerical staff was taken up with inoculations of various kinds. It is most interesting to see the increase in the percentage of children vaccinated against smallpox in the

last ten years—14 per cent in 1949, rising to 50 per cent in 1958—a most gratifying change. Vaccination against poliomyelitis went well, and although at first the response of those aged 15–25 was slow, later it improved considerably. Great help was given by local firms in whose premises special sessions were arranged.

Important developments have taken place in mental health. The Royal Commission will soon bear fruit and careful consideration will have to be given by the Council as to future developments in Bolton. It is certainly desirable that hostels should be provided for certain classes, but unfortunately the provision of money may be difficult. The Authority is well advanced with the community care of mental defectives, and it is hoped that in the coming year the new Adult Training Centre will be completed.

The report of the Chief Public Health Inspector shows the wide range of environmental control exercised by that department. The staff are particularly active at the moment in surveying parts of the town for the establishment of clean air areas and also for slum clearance. The report prepared jointly by the Chief Public Health Inspector and the Borough Analyst on the research undertaken into atmospheric pollution is a most valuable one, and the work done will be most useful in deciding the order in which the clean air areas should be initiated.

In spite of considerable difficulties, it is most interesting to see that the campaign that Bolton has undertaken against contamination of cereals by insects is proving successful, and that many local traders are now insisting on the cleaning of the cereals before they buy them.

In conclusion, on behalf of the staff of the department, I thank the Chairman, Vice-Chairman, and Health Committee for their interest and helpfulness during the year, the staff of other branches of the Corporation for their very full co-operation, and the officers of other departments who have contributed to this report.

A. Ross.

Medical Officer of Health.

July, 1959.

TABLE OF CONTENTS

PART III

PART IV

PART V

PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1958

MEDICAL STAFF

Medical Officer of Health	Ronald W. Elliott, M.D., M.Sc., D.P.H.
Deputy Medical Officer of Health ..	Reginald D Haigh, M.B., Ch.B., D.P.H., M.M.S.A., D.R.C.O.G., D.C.H.
Assistant Medical Officers of Health and School Medical Officers.. ..	Mavis J. Allanson, M.B., Ch.B., D.R.C.O.G. (Part-time. Commenced 1/10/58)
	G. C. Galea, M.D., D.R.C.O.G., B.Sc., Ph.Ch.
	Rosa M. Galloway, M.B., Ch.B. (Resigned 30/9/58)
	G. A. Levell, M.R.C.S., L.R.C.P., D.P.H.
	Eve M. Mawdsley, M.B., Ch.B., D.C.H.
	Margaret T. McCaffrey, M.B., B.Ch., B.A.O., D.C.H., D.P.H.
	Audrey Seddon, M.B., Ch.B., D.R.C.O.G. (Part-time)
	Beryl L. Sephton, M.B., Ch.B. (Part-time. Commenced 1/10/58)

NURSING STAFF

Superintendent Nursing Officer ..	Miss M. Davies, S.R.N., S.C.M., H.V.Cert (Resigned 11/4/58)
	Miss E. M. Richardson, S.R.N., S.C.M., H.V.Cert., D.N., Nursing Admin.(P.H.) Cert. (Commenced 1/8/58)
Deputy Superintendent Health Visitor	Miss J. MacEachern, S.R.N., S.R.F.N., H.V.Cert. (Resigned 14/1/58)
	Miss A. M. Fraser, S.R.N., S.C.M., H.V.Cert. (Commenced 6/2/58)

HOME NURSING

Superintendent	Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V.Cert.
Deputy Superintendent	Miss E. Wallwork, S.R.N. (Commenced 12/3/58)

MIDWIFERY

Non-Medical Supervisor	Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V.Cert.
Assistant Non-Medical Supervisor ..	Mrs. M. E. L. Gooddy, S.R.N., S.C.M.

DAY NURSERIES

Supervisor	Miss L. W. Booth, R.S.C.N., S.C.M., H.V.Cert.

PUBLIC HEALTH INSPECTORS

Chief Public Health Inspector	T. Williams, F.R.S.H., M.R.Inst.P.H.H., M.A.P.H.I.
Deputy Chief Public Health Inspector	N. Ryce, M.R.S.H., M.A.P.H.I.

CLERICAL STAFF

Chief Clerk	T. Ryder, D.P.A., A.C.C.S.
Administrative Assistant	W. Greenhalgh

MENTAL HEALTH SERVICE

Senior Mental Health Officer	R. A. Johnson
Supervisor – Occupation Centre ..	Miss M. E. Tyler, Dip.N.A.M.H. (Resigned 31/3/58) Miss E. Dobbin, Dip.N.A.M.H. (Commenced 14/7/58)

HOME HELP SERVICE

Home Help Organiser..	Mrs. W. Barber

AMBULANCE SERVICE

Superintendent	V. T. Williams
Deputy Superintendent	H. Baber

ANALYST

Borough Analyst	F. Morris, A.M.C.T., F.R.I.C.

BATHS AND WASHHOUSES

Managers ..	Bridgeman Street Baths	A Markham
	High Street Baths	A Markham
	Moss Street Baths & Wash-house	B. A. Broadway
	Hennon Street Slipper Baths ..	B. A. Broadway
	Rothwell Street Wash-house ..	A. L. Duckworth
	Turkish Baths	W. Burns

PART I

STATISTICAL INFORMATION

Summary of Statistics

Births

Deaths

Infant Mortality

Deaths from Cancer

SUMMARY OF STATISTICS, 1958

COUNTY BOROUGH OF BOLTON

Position	Lat. 53° 35′ N. Long. 2° 27′ W.
Elevation above sea level	230 ft. to 1,450 ft.
Geological Formation	Boulder Clay and Sand over Coal Measures
Rainfall (Av. 1887-1958, 43.485″)	48.699″
Area in Acres (Land and Inland Water)	15,279
Population (Census 1921)	178,683
,, (Census 1931)	177,250
,, (Census 1951)	167,162
,, (Estimated Civilian Population, 1958)	161,500
New permanent houses certified, including flats	485
Existing buildings altered to provide dwelling accommodation	4
Estimated number of houses in the Borough	56,870
Rateable Value at 1st April, 1958	£1,711,957
Rate at 1d. in the £ estimated to produce	£6,600
Live Births	2,514
Live birth rate per 1,000 population	15.6
Stillbirths	54
Stillbirths rate per 1,000 live and stillbirths	21.0
Total live and stillbirths	2,568
Infant Deaths	69
Infant mortality rate per 1,000 live births—total	27.4
Infant mortality rate per 1,000 live births—legitimate	26.6
Infant mortality rate per 1,000 live births—illegitimate	45.0
Neo Natal mortality rate per 1,000 live births	20.7
Illegitimate live births per cent of total live births	4.4
Maternal deaths (including abortion)	Nil
Maternal mortality rate per 1,000 live and stillbirths	Nil
Deaths	2,119
*Death Rate (Corrected)	14.3
*Average Death Rate (1949-1958)	14.0
*Heart and Circulation Death Rate	6.84
*Cancer Death Rate	1.82
*Death Rate from diseases of the Respiratory System	1.55
*Pulmonary Tuberculosis Death Rate	.12
Diarrhoea Death Rate (Deaths under two years per 1,000 live births)	Ni

ENGLAND AND WALES:

*Birth Rate	16.4
Stillbirth Rate (per 1,000 total births)	21.6
*Death Rate	11.7
Infant Mortality (Deaths under one year per 1,000 live births)	22.3

*Per thousand of population

VITAL STATISTICS

Births:

There were 2,514 live births to Bolton residents, 1,263 males and 1,251 females. The live birth rate (corrected) per 1,000 of the population was 15.6.

Of all the live births, 451 (approximately 18 per cent) occurred at home, and approximately 82 per cent in institutions—1,237 in Bolton District General Hospital, 273 in Haslam Maternity Home, 212 in Havercroft Maternity Home, and 330 in Heaton Grange Maternity Home. The remaining births took place in institutions and homes outside Bolton.

There were 185 premature live births.

Stillbirths:

The number of stillbirths was 54, giving a stillbirth rate of 21.0 per 1,000 live and stillbirths.

Total Live and Stillbirths:

The total of live and stillbirths was 2,568.

Deaths:

There were 2,119 deaths (1,066 males, 1,053 females) giving a corrected death rate of 14.3 per 1,000 of the population.

A total of 730 persons whose usual place of residence was in the county borough, died outside the borough; of these, 648 died either in the Bolton District General Hospital or in Townleys Annexe.

Non-residents who died in the area numbered 166.

The following table shows the principal causes of death and the age groups affected.

Summary of the Principal Causes of Death, 1958

Cause of Death	No. of Deaths	Males	Females	0–	1–	5–	15–	25–	45–	65–	75–
Tuberculosis, Respiratory	19	11	8	–	–	–	1	3	7	6	2
,, Other	4	3	1	–	–	–	–	1	1	2	–
Syphilitic disease	2	2	–	–	–	–	–	1	1	–	–
Diphtheria	–	–	–	–	–	–	–	–	–	–	–
Whooping Cough	–	–	–	–	–	–	–	–	–	–	–
Meningococcal Infections	–	–	–	–	–	–	–	–	–	–	–
Acute Poliomyelitis	–	–	–	–	–	–	–	–	–	–	–
Measles	–	–	–	–	–	–	–	–	–	–	–
Other infective and parasitic diseases	3	2	1	–	–	–	–	–	1	2	–
Malignant Neoplasm—											
Stomach	76	42	34	–	–	–	–	2	27	25	22
Lung & Bronchus	82	66	16	–	–	–	–	3	44	21	14
Breast	28	–	28	–	–	–	–	5	10	6	7
Uterus	17	–	17	–	–	–	–	2	13	–	2
Other malignant and lymphatic neoplasms	183	92	91	–	–	2	1	6	53	56	65
Leukaemia and Aleukaemia	3	1	2	–	1	1	–	–	1	–	–
Diabetes	8	1	7	–	–	–	–	–	1	5	2
Vascular lesions of nervous system	340	141	199	–	–	–	–	6	69	90	175
Coronary disease, angina	320	211	109	–	–	–	–	11	85	114	110
Hypertension with heart disease	61	33	28	–	–	–	–	–	8	34	19

Cause of Death	No. of Deaths	Males	Females	0–	1–	5–	15–	25–	45–	65–	75–
Other heart disease	283	121	162	1	–	–	1	9	45	60	167
Other circulatory disease	100	38	62	–	–	–	–	1	7	30	62
Influenza	3	1	2	–	–	–	–	–	1	1	1
Pneumonia	92	42	50	13	1	–	1	1	10	24	42
Bronchitis	127	77	50	–	–	–	–	1	40	46	40
Other diseases of respiratory system	28	17	11	–	1	–	–	3	12	6	6
Ulcer of stomach and duodenum	19	15	4	–	–	–	–	1	4	4	10
Gastritis, enteritis and diarrhoea	7	2	5	–	–	–	–	1	1	4	1
Nephritis and Nephrosis	16	9	7	–	–	–	1	1	7	6	1
Hyperplasia of Prostate	17	17	–	–	–	–	–	–	1	2	14
Pregnancy, childbirth and abortion	–	–	–	–	–	–	–	–	–	–	–
Congenital malformations	12	5	7	11	–	–	–	–	1	–	–
Other defined and ill-defined diseases	163	64	99	43	2	1	4	4	26	34	49
Motor vehicle accidents	21	11	10	–	1	1	4	1	8	2	4
All other accidents	64	31	33	2	2	1	1	9	13	11	25
Suicide	22	12	10	–	–	–	–	4	11	5	2
Homicide and Operations of War	–	–	–	–	–	–	–	–	–	–	–
TOTALS	2,120	1,067	1,053	70	8	6	14	76	508	596	842

Deaths from Puerperal Causes:

There were no deaths attributable to puerperal causes during the year

Infant Mortality:

There were 69 deaths of infants under one year, giving an infant mortality rate of 27.4 per 1,000 live births. The infant mortality rate per 1,000 legitimate live births was 26.6—illegitimate 45.0. The primary causes of death are shown in the following table:—

Cause of Death	Age at Death					Total for each cause
	Under 4 weeks	4 weeks to 3 mths	3 to 6 months	6 to 9 months	9 to 12 months	
Prematurity	28	–	–	–	–	28
Congenital malformations	11	2	–	–	1	14
Bronchitis and Pneumonia	2	6	1	3	1	13
Post-natal asphyxia and Atelectasis	3	–	–	–	–	3
Injury at Birth	3	1	–	–	–	4
Other Causes	5	–	2	–	–	7
TOTALS	52	9	3	3	2	69

Deaths under Four Weeks:

There were 52 deaths of infants under four weeks giving a neonatal mortality rate of 20.7 per 1,000 live births. The rate for England and Wales was 16.2. The following table shows the ages at which death took place:—

Cause of Death	0–7 days	8–14 days	15–21 days	22–28 days	Total under 29 days
Prematurity	28	–	–	–	28
Congenital Malformations	6	2	3	–	11
Bronchitis and Pneumonia	2	–	–	–	2
Post-natal Asphyxia and Atelectasis	3	–	–	–	3
Injury at Birth	3	–	–	–	3
Other Causes	5	–	–	–	5
TOTALS	47	2	3	–	52

Eight of these babies were under 2½ lbs. in weight at birth and the gestation period was twenty-six weeks or less. Of these eight, six were under 2 lbs., two being 14 and 15 ozs. respectively with estimated gestation periods of twenty-two and twenty weeks, and lived for eight hours and fifteen minutes. Such very small babies, although breathing and showing signs of life at birth, could only, in exceptional circumstances, be successfully established in continued life separate from their mothers.

Perinatal Mortality:

The perinatal mortality rate is the number of stillbirths added to the number of infant deaths during the first week of life, expressed as a rate per thousand total births, both live and still. This death rate is a measure of the hazards to the foetus and newborn baby which are present during the latter months of pregnancy and in the period immediately after birth.

A considerable number of the deaths in the first week are due to injuries and asphyxia sustained during birth. Also included amongst the deaths in the first week are those babies who die from congenital abnormalities which are so severe as to make a continued separate existence impossible.

The following table shows the infant mortality rate, neo-natal mortality rate, stillbirth rate, perinatal death rate and the death rate of infants aged one week but under one year, for the last eleven years.

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	**1958**
Infant Mortality Rate	38·2	30·5	35·5	40·8	28·4	27·9	28·5	25·7	23·9	25·6	**27·4**
Neo-natal Mortality Rate	22·0	18·0	20·0	23·0	16·5	18·9	19·8	14·2	15·9	16·7	**20·7**
Stillbirth Rate	26·8	27·5	19·3	24·1	27·6	23·0	25·0	24·7	26·7	21·8	**21·0**
Perinatal Death Rate.	49·2	45·6	37·8	39·6	45·4	39·5	42·0	38·2	42·2	37·5	**39·3**
Deaths of infants aged 1 week but under 1 year per 1,000 total births	18·5	13·2	17·3	21·5	12·8	11·5	12·2	12·9	7·8	10·3	**8·6**

Fatal Accidents in the Home:

Eleven males and twenty-three females died as the result of accidents in the home. It is generally said that the majority of people who die as a result of accidents in the home are elderly, but in Bolton last year this was true of the females only. Up to the age of 70 the number of fatal accidents in the home was the same among males and females—seven of each sex. Among elderly people (70 years and over) there is a much higher occurrence of accidents among females than among males—sixteen females and four males. This must be a reflection of the fact that the death rate among males of middle age is higher than among females, and fewer males reach old age.

It is unfortunate to have to note that one baby of five months died as the result of aspirin poisoning, a child of twenty-one months was drowned as the result of falling into a wash-tub and a boy of twelve died as a result of coal gas poisoning.

Accidents under the age of 70 years:

There were fourteen fatal accidents in this age group. Seven were due to coal gas poisoning; three were due to falls in the home; two to clothing catching fire; one to drowning in a wash-tub and one to aspirin poisoning.

Accidents at the age of 70 years and over:

There were twenty fatal accidents in this age group and of these only four were males and sixteen were females. Fracture of the femur was the major cause and was involved in eight cases (one male and seven females). Falls in the home account for another five cases, coal gas poisoning for three cases, burns for three cases and barbiturate poisoning for one case.

Coal Gas Poisoning:

It will be seen that altogether ten deaths were due to coal gas poisoning. In four cases the cause was undoubtedly accidental. Two were due to a tube becoming detached from a gas fire; this ought not to occur with apparatus which is properly designed and used. In another case a woman of 76 died as a result of an escape of gas from a fractured gas pipe. In the fourth case gas was accidentally inhaled from an unlit gas ring. In the remaining six cases open verdicts were returned.

Suicide:

Twenty-two deaths were due to suicide. Coal gas was responsible for sixteen of these deaths. There has been no appreciable change in the number of deaths due to suicide since 1957 when there were twenty-five deaths.

The following table shows the distribution of deaths according to age, sex and the method of suicide employed.

	Age Group					
	15–44		45–64		65 and over	
	Male	Female	Male	Female	Male	Female
Coal Gas (Carbon Monoxide Poisoning)	3	–	3	4	4	2
Barbiturate Poisoning	1	–	–	1	1	–
Hanging	–	–	–	1	–	–
Drowning	–	–	–	2	–	–
TOTALS	4	–	3	8	5	2

Deaths from Cancer

Localisation of Disease, Number of Deaths and Rate Per Cent of Total Deaths annually for the past ten years

	1958		1957		1956		1955		1954		1953		1952		1951		1950		1949	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Stomach	**76**	**3·59**	52	2·30	59	2·66	55	2·57	67	2·99	70	3·32	77	3·39	78	2·94	74	3·14	53	2·34
Lung & Bronchus	**82**	**3·87**	85	3·77	78	3·51	60	2·81	65	2·90	66	3·13	69	3·04	48	1·81	39	1·65	41	1·81
Breast	**28**	**1·32**	39	1·73	35	1·58	38	1·78	32	1·43	35	1·66	40	1·76	29	1·09	19	0·81	31	1·37
Uterus	**17**	0·80	19	0·84	19	0·86	12	0·56	16	0·71	17	0·80	20	0·88	20	0·75	17	0·72	26	1·15
Other Sites	**183**	**8·64**	178	7·89	184	8·29	171	7·99	187	8·35	175	8·29	176	7·76	185	6·97	203	8·60	175	7·74
TOTAL DEATHS FROM CANCER	**386**	**18·22**	373	16·53	375	16·90	336	15·71	367	16·38	363	17·20	382	16·83	360	13·56	352	14·92	326	14·41
TOTAL DEATHS: (All Causes) ..	**2,119**		2,256		2,220		2,138		2,240		2,111		2,269		2,655		2,360		2,262	

PART II

LOCAL HEALTH SERVICES

Care of Mothers and Young Children

Midwifery

Health Visiting

Home Nursing

Vaccination and Immunisation

Ambulance

Loan of Nursing Equipment—Convalescence

Home Help

Mental Health

The First Ten Years of the National Health Service

CARE OF MOTHERS AND YOUNG CHILDREN

Ante-Natal Clinics:

Ante-natal clinics conducted by Health Department staff continued to be held twice weekly in the Civic Centre on Monday and Wednesday mornings. These clinics were held for patients who had booked a municipal midwife and were to be confined at home.

Altogether, 98 clinics were held with an average attendance of 28 patients per session.

As is explained elsewhere in the report, the number of domiciliary confinements was substantially greater than in 1957—450 as against 402.

In view of the increased number the ante-natal clinics were far busier than has been the case in recent years. Furthermore, with each succeeding year it appears that a good deal more ante-natal work is carried out for each patient attending. As an example I would quote that in 1958, in addition to all the other ante-natal work, most of the patients were vaccinated against poliomyelitis.

It is now a routine procedure to carry out a chest X-ray of every expectant mother, and routine blood examination is carried out as well.

It was thought, towards the end of the year, that the ante-natal clinics were not entirely satisfactory for two principal reasons. Firstly, the number of women attending was thought to be too large for completely adequate ante-natal supervision to be given and secondly, it was not possible to arrange for the midwives on duty at each clinic session to be those midwives who would be delivering the women who were attending at that session. I am sure that much of the value of an ante-natal clinic is lost if the number of women attending is so large that an inadequate amount of time is spent with each patient.

For the above reasons, towards the end of the year, it was decided to revise our arrangements for ante-natal clinics and in future three ante-natal clinics will be held—on Monday morning, Wednesday morning, and Friday afternoon. At each clinic two midwives and one health visitor will be present together with a doctor. As far as possible, the rota of midwives attending the clinics will be so arranged that the midwives present at each session will be the midwives who will be delivering the patients who attend at that session. Furthermore, a doctor will be present for the greater part of the session, but for the last half hour or so, only the midwives will be present and will therefore be able to see and examine those patients for which they have been booked but whose ante-natal care is being carried out exclusively by the family doctor. It is hoped that these new arrangements will not only cater for the increasing number of domiciliary confinements, but will also provide a much better type of ante-natal care.

ATTENDANCES:

New bookings	621
Return visits	2,084
Post-natal visits	84
TOTAL ATTENDANCES ...	2,789

As in previous years the attendance at post-natal clinics has been rather low. Although 190 mothers were invited to attend, only 76 responded.

STAFF:

The staff in attendance at each clinic were:—

1 medical officer
2 health visitors
1 midwife (and in some cases a pupil midwife)

CASES REFERRED FOR CONSULTANT OPINION:

Patients were referred to Bolton District General Hospital for the following reasons:—

	No. of Cases
History of post-partum haemorrhage	1
History of Epilepsy	1
Post Maturity	2
Multiple Pregnancy	2
Toxaemia of Pregnancy	2
Breech and Mal-presentations	3
Bad Obstetric history	1
Ruptured membranes	1
Cervical erosion (Post-natal)	1
Negative Aschheim-Zondek Test (For D and C)	1
Referred on social grounds	2
TOTAL	17

BLOOD EXAMINATIONS:

All patients when they first attended the clinic had a sample of blood taken for investigation in the haematology department of the Bolton Royal Infirmary. The routine tests were haemoglobin estimation, determination of Rhesus factor and Wasserman or Kahn reaction. Where the patient was found to be Rhesus negative the specimen was further investigated for the presence of antibodies and the test was repeated on a further specimen taken during the 32nd week of pregnancy. A repeat haemoglobin estimation during the last eight weeks of pregnancy was also done in all cases where it was indicated.

A.B.O. blood grouping was not considered necessary.

The following are the results of the examinations:—

Blood specimens for haemoglobin	771
Rhesus negative specimens	134
Rhesus positive specimens	412
Wasserman negative	549
Wasserman positive	5
Wasserman doubtful	6

Chest X-ray:

By courtesy of the chest physician all patients were given an appointment to have a chest X-ray at a special session for expectant mothers on Thursday afternoons in the chest clinic. Unfortunately, it was not possible for the X-ray sessions to be held at the same time as the ante-natal clinics. Altogether, 275 patients attended for the X-ray. None of the mothers was found to have active tuberculosis.

Vaccination against Poliomyelitis:

Each expectant mother visiting the ante-natal clinic, whether for the first time or during a return visit, was offered vaccination against poliomyelitis. Of the total women attending, 349 were immunised against poliomyelitis by two injections. These women have since been offered a third injection.

Iron Therapy:

Because of the frequent occurrence of apparent anaemia in expectant mothers ferrous succinate tablets were issued to all patients as a routine prophylactic measure. In many cases where the patient had a severe degree of anaemia and was too far advanced in pregnancy for reliance on oral iron therapy alone, arrangements were made through the general practitioners for intramuscular iron to be prescribed, the midwives being responsible for giving the injections.

Physiotherapy:

Instruction in relaxation exercises was provided during the clinic sessions by the physiotherapist who was in attendance in an adjoining room.

Welfare Foods:

Welfare foods were available during all clinic sessions from the counter in the waiting room and patients were encouraged to take advantage of the scheme.

Maternity Packs:

Maternity packs containing all the necessary sterile equipment for the confinement were supplied free to all mothers who had arranged to be delivered at home. Five hundred and twenty-eight such packs were issued during the year.

Dental Arrangements:

Unfortunately owing to the shortage of dentists it was still not possible in 1958 to provide a dental service for expectant mothers and young children. Only special emergency cases were occasionally offered treatment at a school dental session.

Liaison:

Co-operation with the hospitals and general practitioners has been excellent. The hospital records of previous confinements have been made available for the information of the clinic staff and they have been of invaluable assistance in many cases. Also where a patient had attended the hospital booking clinic but not been accepted for hospital confinement, copies of the blood and X-ray reports were forwarded to the Local Authority clinic when the patient subsequently attended to book a midwife. This has saved repetition of routine tests.

As before, the general practitioner has been kept fully informed of his patient's attendances at the clinics. A full report, including details of the blood tests, has always been sent to the general practitioner when a patient first attended the clinic, and subsequent reports were sent in those cases where the general practitioner had been engaged. The midwives have also been sent full reports of their patients' attendances at the clinic.

Ministry of Health Circular No. 9/56:

Following a series of meetings during 1956, 1957 and 1958 between professional representatives from the staff of the Bolton Hospitals, General Practitioners, the Medical Officer of Health, No. 11 Division, Lancashire County Council, and the Medical Officer of Health of the Bolton County Borough Council, a report was published in April, 1958. This showed that the meetings had been most useful in increasing the liaison and co-operation in midwifery between the three branches of the service. An agreed standard of ante-natal care was determined. It was considered that general practitioners in Bolton have adequate facilities for maternity cases. Arrangements were made to ensure that there should be complete interchange of information between the midwife and general practitioner booked for the case, and that information regarding ante-natal care, etc., should be made available to the nursing staff at the maternity homes prior to admission of a patient. The value of the Local Health Authority's clinics for relaxation and education classes was agreed and it was thought that the local welfare and information service for expectant mothers is adequate.

Child Welfare Centres:

The pattern of child welfare organisation has remained unchanged. Fourteen sessions are held weekly and one at fortnightly intervals. There has been no progress in the provision of adequate premises. The Civic Centre remains the only purpose-built child welfare centre. One clinic makes use of a school building, two clinics are held in school clinic buildings, and the remaining clinics are held in church halls. Some of these premises are unsatisfactory because of substandard heating, lighting and cleanliness.

In spite of these difficult working conditions much valuable work continues to be carried out in the child welfare centres. It has for some time been felt that many mothers attend the clinics for the sole purpose of having the baby or young child weighed. In many cases there is no necessity for the child to be weighed and during the year an effort was made to discourage the routine and often purposeless weighing of babies and young children. In some clinics as many as ninety children would attend and one health visitor's time would be fully occupied by weighing the children and she would have no time to carry out her true function which is to give advice on the care of the young child.

Gradually, throughout the year in some clinics, the amount of weighing was reduced and mothers were informed that much of the weighing had been unnecessary and that it would be carried out less often. The fall in attendances at the child welfare clinics over the year amounted to 6,365 and is thought to be due to this new tendency.

Health visitors now have more time to talk to the mothers and to give advice, and although the fall in attendances may give the impression that the amount of work done at the clinics is being reduced, this is not the case. I am

sure that more useful work is being carried out and the health visitors have far more time to spend with the mother and to give her very helpful advice. It is hoped that the centres can be made more attractive in the future so that the mother will be encouraged to spend more time in consultation with the staff discussing her problems and learning how to bring up her family to enjoy complete physical and mental health.

Details of the centres and of the volume of work carried out are as follows:—

Centre	Day	No. of Sessions	Total Attendances
Civic Centre	Monday afternoon	46	2,373
Chalfont Street	do.	47	2,249
Deane	do.	47	1,774
Tonge Fold	do.	46	1,152
Chorley Old Road	Tuesday afternoon	50	2,645
Halliwell	do.	48	3,856
Civic Centre	Wednesday afternoon	50	2,258
Roschill	do.	50	1,807
Astley Bridge	Thursday afternoon	50	2,930
Civic Centre	do.	52	2,184
Daubhill	do.	50	3,474
Delph Hill	Friday afternoon	48	2,629
Tonge Moor	do.	50	3,147
The Withins	do.	49	2,783
Lever Edge Lane	Saturday morning (fortnightly)	24	816
	Totals	707	36,077

The above figures when broken down into attendances by age group are much more instructive as shown in the following table:—

Attendances at Child Welfare Centres

Age of Child	First Attendance	Subsequent Attendances	Seen by Doctor at Child Welfare Centre		
			Mother's Request	H.V's Request	Routine
0—1 year	2,018	28,009	3,835	459	6,197
1—2 years	59	3,522	505	67	185
2—5 ,,	48	2,421	349	58	170
Totals:	2,125	33,952	4,689	584	6,552
Totals:	36,077		11,825		

Whilst the doctors and health visitors continue to give individual advice to mothers attending the child welfare centres, little progress has been made in extending health education to groups of mothers on subjects of topical interest to them. It is hoped that this type of teaching will develop during the next year.

Of the children attending the child welfare centres, a number were referred to consultants by the assistant medical officers, always of course, with the family doctor's consent. Very rarely, if ever, does the family doctor disagree with the decision to seek consultant advice. The details of the 43 cases referred during the year are as follows:—

Referred to Ophthalmic Surgeon	14
,, ,, Dermatologist	3
,, ,, Paediatrician	15
,, ,, Orthopaedic Surgeon	3
,, ,, General Surgeon	3
,, ,, Ear, Nose and Throat Surgeon... ...	4
,, ,, Chest Physician	1
TOTAL.	43

SPECIAL TODDLER CLINICS:

There were two toddler clinics in operation during the year. However, the response to the special appointments sent out to parents of toddlers on their birthdays asking them to come for full medical examination has been disappointing.

The following is a summary of the work carried out:—

CHILD WELFARE CENTRE	NO. OF SESSIONS	NO. OF TODDLERS ATTENDING
Delph Hill	8	48
Chorley Old Road	5	24

VOLUNTARY WORKERS:

There has been a welcome increase in the number of voluntary workers who attend regularly at the child welfare centres to help with routine duties. We now enjoy the help of 57 of these ladies who give up much of their time to help the centre staff. It is encouraging to find so many people willing to give disinterested service in these materialistic times. I should like to thank them very much for their efforts and to express the appreciation of the Committee and officers of the department for the work they have done throughout the year.

Care of Unmarried Mothers:

The Bolton Moral Welfare Association has continued the valuable work in the care of unmarried mothers and their babies. We are indebted to the devoted work of the Moral Welfare Officer who has given great assistance with many problems. An annual grant is paid to the Association by the Corporation for this purpose and in addition, any maintenance charges required for individual cases, where necessary, are met.

Mother and Baby Homes where these girls were accommodated for an average period of nine to ten weeks are as follows:—

The Grange Maternity Home, Wilpshire, Blackburn...	9 cases
The Methodist Maternity Home, Manchester	5 cases
St. Anne's Maternity Home, Heywood	4 cases
The Girls' Hostel, Lancaster	2 cases
St. Monica's Maternity Home, Kendal	1 case
The Home of the Good Samaritan, Grappenhall, Warrington	2 cases
St. Margaret's Home, Goose Green, Wigan	3 cases

All cases paid part of the cost of maintenance and the Local Authority paid the remaining part.

Homes for Mothers and Children:

It was not found necessary for the Authority to make use of the facilities at Brentwood Recuperative Centre for the rehabilitation of families with social difficulties during the year. This is an indication of the valuable work of the health visitor engaged full-time on the prevention of break-up of families.

Family Planning:

No change has taken place in the administration of the facilities for family planning advice in the County Borough.

This work is carried out by the Bolton Family Planning Association and two separate weekly clinics are held, one at the Health Department in the Civic Centre on Mondays from 6.30 to 7.30 p.m. and the other at the Friends' Meeting House, Tipping Street on Fridays from 6.30 to 7.30 p.m.

On the whole there has been a slight decline in the volume of work carried out. The patients were all referred from medical sources. At the Civic Centre there were 1,423 patients who had previously attended, and 418 new patients. The number of clinics held was 44. At Tipping Street there were 401 patients who had previously attended, and 197 new patients. The number of clinics held was 47.

Distribution of Welfare Foods:

Welfare foods were distributed daily from the public counter in the Health Department waiting room at the Civic Centre, and also from the thirteen child welfare centres when in session.

The following table shows the total issues during the past three years:—

COMMODITY	1956	1957	**1958**
National Dried Milk	70,391 tins	54,384 tins	**39,391** tins
Cod Liver Oil	21,854 bottles	17,365 bottles	**11,716** bottles
Orange Juice	115,035 bottles	117,761 bottles	**72,961** bottles
Vitamin A & D Tablets	9,140 packets	8,550 packets	**8,802** packets

Approximately 74 per cent of the first and last commodities, and 62 per cent of the others were this year distributed from the Health Department distributing centre which was open during normal office hours.

Welfare foods were issued from the central store at the Health Department to the following institutions during 1958. The figures are included in the above totals for the year.

National Health Service Institutions	National Dried Milk ...	402 tins
	Cod Liver Oil	36 bottles
	Orange Juice	576 bottles
Day Nurseries	National Dried Milk ...	24 tins
	Cod Liver Oil	216 bottles
	Orange Juice	678 bottles

The figures given above reveal that the downward trend in the distribution f National Dried Milk and Cod Liver Oil has continued.

This year is the first full year in which National Dried Milk has been sold t 2/4d. and Orange Juice has been restricted to children up to two years of ge. The decrease in sales of these commodities is to a large extent a result f these two factors.

The decrease in issues of Cod Liver Oil is more marked than in previous ears, and as this is issued free of charge the reason for the decrease is not pparent.

ay Nurseries:

January saw the closing of Newport Street Day Nursery, reducing the otential accommodation in the service by 60 places. We are now left with ur day nurseries with potential accommodation for 197 children.

As the following table shows, in spite of a nursery having been closed, the erage daily attendance was higher than the year before.

Nursery	Accommo-dation	Average daily attendance	
		1957	**1958**
Newport Street	60	42·36	**Closed Jan. 1958**
Park House	50	27·64	**35·07**
Shaw Street	50	27·52	**40·68**
Merehall	47	33·70	**33·71**
Roxalina Street	50	31·90	**38·80**
Totals (excluding Newport St.)	197	120·76	**148·26**

The total number of children attending the nurseries during the year was 7. The waiting list at the beginning of the year was 25 and at the end of the ar was 4.

CHARGE FOR DAY NURSERY ACCOMMODATION:

The minimum charge remained at 2/6d per day and the maximum charge 9/3d per day.

Charge payable at end of year	No. of Cases	
	1957	1958
2/6d – 3/10d per day	121	89
4/1d – 6/- ,, ,,	42	26
6/6d ,, ,,	6	8
7/9d ,, ,,	15	9
9/3d ,, ,,	50	44
TOTALS	234	176

During the year 5 appeals against assessment affecting 10 children were considered by a special sub-committee. Of these, 3 appeals affecting 7 children were successful and 2 appeals affecting 3 children were refused.

STAFF:

Following the closure of Newport Street Day Nursery in January, 1958, the staff were absorbed into the remaining four nurseries and recruitment of new staff was kept to a minimum.

The staff at the 31st December was as follows:—

Day Nursery Supervisor	1
Matrons	4
Deputy Matrons	4
Wardens	4
Nursery Nurses	14
Nursery Assistants	5
Students	7
TOTAL STAFF	39

Analysis of Reasons for Attendance

Day Nurseries:	Park House	Shaw Street	Mere-hall	Roxalina Street	Total
No. of children on Register at 31/12/58	41	47	43	45	176
Children whose mothers were—					
Employed in/as:—					
Mills	19	22	23	31	95
Clothing Factories	–	–	2	2	4
Nurses, Teachers, etc.	5	2	2	2	11
Retail Business	1	1	–	–	2
Offices	5	7	4	2	18
Engineering Works	–	2	1	–	3
Shop Assistants	4	1	–	2	7
Paper Works	1	–	–	–	1
Canteen and Cafes	–	2	2	1	5
Other Occupations	3	6	8	4	21
In poor health	3	1	–	1	5
Other children admitted on social grounds	–	3	1	–	4
TOTALS	41	47	43	45	176
In the above were included the following:—					
Mothers separated or divorced	4	7	7	4	22
Widows	–	3	1	1	5
Unmarried Mothers	7	9	7	3	26
Number of children attending during year	116	105	99	127	447

NFECTION:

Number of Cases

Nursery	Measles	German Measles	Chicken-pox	Mumps	Whooping Cough	Sonne Dysentery
Park House	–	–	15	–	–	–
Shaw Street	–	–	2	1	–	5*
Merehall	–	–	–	–	–	17*
Roxalina Street	–	1	5	–	–	–

* Includes 1 member of staff

Every child was offered immunisation against whooping cough, diphtheria nd tetanus, and also vaccination against poliomyelitis in the later part of the ear. There were 4 refusals.

This treatment and routine medical inspections were carried out by mem-ers of the medical staff.

Training of Nursery Nurses:

Forty-four students of the Bolton Training Centre were awarded the certificate of the National Nursery Examination Board. They were recruited from the following sources:—

Local Health Authority
Local Education Authority
Church of England Children's Society
Wigan Local Health Authority

After qualification some of the nurses were employed in day nurseries nursery schools or classes locally; others returned to the nurseries under the control of the Church of England Children's Society.

Three were accepted for general hospital training including special mention of one nurse who commences training at St. Bartholomew's Hospital, London in February, 1959.

Two other nursery nurses were employed in Birtenshaw Hall Special School for Spastics, and in a home for blind babies at Southport.

Nurseries and Child Minders Regulation Act, 1948:

Closure of Industrial Nurseries:

Two industrial nurseries, namely T. M. Hesketh and Sons, and Knowl Limited, closed during the year due chiefly to trade recession.

Registration of New Premises:

Application was made for registration of premises for the provision regular day nursery facilities by the Persian Mill Spinning Company. Th application was granted after certain recommendations had been carried ou

The five industrial nurseries which provide accommodation for 185 childr were visited on several occasions by the Supervisor of the Day Nurseries a found to be satisfactory.

The infection in these nurseries included 4 cases of scarlet fever and 9 cas of chickenpox.

In May, the Public Health Nursing Officer attached to the Ministry Health visited all the industrial nurseries and Local Health Authority's nurser in order to make an unofficial survey of the arrangements made for the ca of children under five years of age away from their homes during the day.

Registration of Child Minders:

Once again there have been no applications for the registration of chi minders under the above Act, but as has been mentioned on previous occasio we are well aware of many children being minded by relatives and oth outside the terms of the Act. Health Visitors carry out supervision of the children as a normal part of their duties.

Dental Treatment:

I am indebted to Mr. A. E. Shaw, the Principal School Dental Officer, for the following information and comments.

Because of staff shortages during 1958 it was again necessary to curtail regular sessions for dental treatment for the priority classes, but special emergency cases were afforded treatment facilities in conjunction with school dental sessions.

Advertisements for additional dental staff have not, as yet, met with any success so that this important 'priority' work is suffering a regrettable eclipse.

The dental profession has received very badly the contents of the Memoranda of Evidence on dentistry for the priority classes submitted by the Local Authorities Association to The Royal Commission on remuneration for Doctors and Dentists. This seems to belittle the importance of the work done by the Public Dental Service for priority classes and those who conduct this work, and will do little to aid recruitment for this very important dental service. The hope is expressed that enlightened authorities will dissociate themselves from the tenor of the views expressed in this document.

The Occupation Centre:

The children received a dental inspection during the course of the year and dental treatment was given to all those needing and accepting treatment.

Dental Arrangements

Number of officers employed at end of year on a salary basis in terms of whole-time officers to the maternity and child welfare service:—	
(1) Senior Dental Officer	—
(2) Dental Officers	—
Number of officers employed at end of year on a sessional basis in terms of whole-time officers to the maternity and child welfare service	—
Number of dental clinics in operation at end of year	—
Total number of sessions (i.e. equivalent complete half days) devoted to maternity and child welfare patients during the year	5
Number of dental technicians employed in the Local Health Authority's own laboratories at the end of the year	—

Analysis of Priority Dental Care

	Expectant and Nursing Mothers	Children under five
Examined	4	22
Needing treatment	4	20
Treated	3	18
Made dentally fit	1	18
Scalings and Gum Treatments	–	–
Fillings	–	4
Silver Nitrate Treatment	–	–
Crowns and Inlays	–	–
Extractions	6	27
General Anaesthetics:	1	15
Dentures: Complete	–	–
Partial	–	–
Radiographs	–	–

Physiotherapy:

The activities of the physiotherapist are not limited strictly to patient who are the direct responsibility of the department. It has been quite noticeable feature for this type of work to be carried out on behalf of quite number of organisations. Cases for massage and breathing exercises a referred not only from our own child welfare and school clinics, but also fro the chest clinic and from the aural surgeon.

The physiotherapist has also continued her activities in this direction the Lostock Open Air School where, with the assistance of the teachers, muc satisfactory work has been done.

Ultra-violet light sessions are held each day and the patients consist school children as well as pre-school children. Each patient attends two three times a week depending on circumstances during the course of treatmen

The policy of giving the facilities of the relaxation classes to expecta mothers whether they be Health Department cases or from the nursing hom or from the hospital or family doctor, has been continued.

During 1957 there was a considerable increase in all the activities of t physiotherapist and this has been maintained during 1958 and on the wh one can say that there has been very little alteration in the volume of w during the last two years.

Summary of Work:

	Massage and Exercises	Breathing and Postural Exercises
No. of Patients	167	210
,, ,, Treatments	699	677

The above figures include 40 new patients for massage, and 69 new patients for breathing exercises, and 110 sessions were held.

	Ultra-Violet Light	
	Pre-School Children	School Children
No. of Patients	400	571
,, ,, Treatments	2,833	3,164
,, ,, Sessions	133	93
,, ,, New Patients	179	208

	Expectant Mothers—Relaxation Classes		
	No. of Patients	No. of New Patients	No. of Attendances
Domiciliary Midwifery Service ...	237	73	556
Nursing Homes	415	169	943
Own Doctors	38	17	82
Bolton District General Hospital	39	18	91

MIDWIFERY

The year has seen a slightly increased number of births compared with the previous year.

Distribution of Births:

The three services catered for the patients as follows during each of a number of years since 1939.

	1939	1948	1952	1953	1954	1955	1956	1957	1958
Total Births	2,442	2,906	2,423	2,490	2,440	2,302	2,558	2,423	**2,571**
Domiciliary Births ..	1,057	1,026	476	573	464	404	425	405	**460**
Bolton District General Hospital	720	901	1,010	986	1,050	1,101	1,223	1,176	**1,271**
Maternity Homes (3) ..	*326	974	851	864	830	785	910	842	**840**

* Only Haslams open.

The balance of births is accounted for by births at out-of-town addresses or by general practitioners.

Professional Meetings on the Maternity Service:

The professional representatives of all the three services continued their discussions which were inaugurated in 1956 by the Chairman of the local Hospital Management Committee, and finally issued a report which has been circulated to all concerned in the Maternity Service of the town, including the general practitioners, hospital staff, and local authority staff. The report was fully discussed at a joint meeting of general practitioners and representatives from the local health authority and hospital consultant staff, and it was agreed to put the recommendations into force. This report will have considerable bearing on the co-ordination of the services and should lead to considerable improvements and better co-operation. It was unanimously decided that the Professional Meetings had been extremely useful and that the Committee should remain in being to discuss any future problems involving the service.

Practising Midwives:

The midwives who notified their intention to practise in accordance with the rules of the Central Midwives Board were:—

In Hospital and Maternity Homes	26
In Domiciliary Practice	11

Nine of the domiciliary midwives were employed by the Local Health Authority; one was a private maternity nurse and one was employed by the health authority of an adjoining area. The private maternity nurse who notified her intention to practise did not attend any patients in Bolton.

Domiciliary Staff:

One midwife in the employ of the Local Authority retired in February. The vacancy was filled in September by a midwife who had just completed district nurse training, with the agreement to include a proportion of her time in general nursing. There were no other changes in the staff. One midwife was 'off duty' through sickness for almost seven months.

The staff has been fully occupied throughout the year as in addition to an increased number of domiciliary births, visits have been paid to 128 patients who were discharged from hospital before the tenth day—an increase of 71 patients on the figure of 57 dealt with during 1957.

Domiciliary Confinements:

Domiciliary midwives employed by the Local Health Authority attended 450 confinements. A midwife from an adjoining health authority attended 2 confinements in the Lostock area of Bolton. Doctors notified 2 deliveries. Visits made by the midwives were as follows:—

Ante-natal visits	5,065
Nursing visits during the puerperium	8,463
Post-natal visits	85
TOTAL	13,613

Included in the above visits are those made to patients discharged from hospital before the tenth day.

Professional attendants at confinements varied as shown below:—

Doctor not booked and not present	125
Doctor not booked and present	5
Doctor booked and not present	278
Doctor booked and present at delivery	42

Most of the patients received some form of analgesia as follows:—

Trichloroethylene was administered in 332 cases

Nitrous Oxide was administered in 10 cases

Pethidine was used for 190 cases

Notifications:

In accordance with the Rules of the Central Midwives Board, the following notifications were received from midwives:—

	Domiciliary Practice	Maternity Homes
Notification of Stillbirth	6	9
Notification of Artificial Feeding	72	151
Notification of Death of Child	–	–
Liable to be a source of infection	1	–

In addition, the Bolton District General Hospital and other hospitals notified the commencement of artificial feeding concerning 186 mothers normally resident in Bolton. The total denotes a failure of 1 in 6 mothers to feed their babies even up to the fourteenth day by natural means.

Notification of Puerperal Pyrexia:

Four notifications were received from the following sources:—

Bolton District General Hospital	1
Maternity Homes	1
Domiciliary Midwives	2

Of these 4 cases, 2 showed the cause of pyrexia as mastitis, and 2 were due to puerperal infections. All cases were mild and were convalescent in less than a week.

Medical Aid:

Medical aid was sought by domiciliary midwives on 138 occasions from family doctors for the following conditions:—

	No. of Cases
RELATING TO THE MOTHER:	
ANTE-NATAL CONDITIONS:	
Ante-partum haemorrhage	5
Abortion	1
Abnormal presentations	1
Toxaemia	1
Other medical conditions	2
DURING LABOUR:	
Premature labour	6
Prolonged labour	8
Mal-presentation	7
Perineal tear	56
Post-partum haemorrhage	6
Abnormality of placenta	2
Other conditions	2
PUERPERIUM:	
Puerperal rise of temperature	7
Thrombo-phlebitis	3
Mastitis	1
Suppression of lactation	8
Other conditions	4
RELATING TO THE CHILD:	
Discharging eyes	9
Asphyxia	2
Abnormalities	4
Other conditions	3
TOTAL	138

Calls for medical aid to the three maternity homes numbered 52 in respe of Bolton mothers.

Maternal Mortality:

There were no maternal deaths in Bolton during 1958.

Flying Squad:

The Obstretric Emergency Team from the Bolton District General Hospi was called on by domiciliary midwives on four occasions for the followi reasons:—

Post-partum haemorrhage	2
Abnormal breech presentations	2

(One of these was two months premature)

District Midwifery Training:

Four pupil midwives took the Part II midwifery training in Bolton and owing to the shortage of district midwifery teachers on the staff arrangements were made for two pupils to receive training outside the Borough—in Pendlebury and in Horwich.

In June, however, on application to the Central Midwives Board, approval was given to another two of our district midwives who had, by this time, gained further experience to be allowed to train pupils. Unfortunately, this coincided with a dearth in applicants for midwifery training which is experienced in many parts of the country, and there has only been one pupil since August. Three domiciliary midwives are now recognised as district teachers.

Refresher Courses:

One midwife attended a Refresher Course held at Cardiff.

HEALTH VISITING

Staff:

At the end of the year the staff comprised:—

Superintendent Nursing Officer
Deputy Superintendent Health Visitor/School Nurse
Centre Superintendent
1 Health Visitor engaged solely on problem families
25 Health Visitor/School Nurses
3 Tuberculosis Health Visitors
3 School Nurses
1 Clinic Nurse

TOTAL: 33 plus 2 administrative staff and 1 who spends about half her time on administration

AUTHORISED ESTABLISHMENT: 40 plus 3 administrative staff

In addition to the above, 5 student health visitors commenced training in September at the Technical College on the Course run by the Queen's Institute of District Nursing. Four student health visitors completed their training at the Technical College in June. They were successful in passing their examination and joined the staff of the department.

Two qualified health visitors joined the staff during the year. Four health visitors resigned from the department during the year to take up appointments elsewhere.

Staff Training:

The policy of sending our health visitors on training courses at intervals of five years, in order to keep them up to date with modern developments, has been continued. In June, one health visitor attended the summer school at Lady Margaret Hall, Oxford, for two weeks. In August, one health visitor attended the summer school at the University of Nottingham for two weeks. In December, one health visitor attended the winter school at Bedford College, London, for two weeks. In addition, the Day Nursery Organiser attended an

intensive course on Teaching Methods at the University of Nottingham for two weeks. All these courses were arranged by the Women Public Health Officers' Association. The Superintendent Nursing Officer attended a one week course for Nursing Officers at the Civil Defence Staff College, Sunningdale.

The Annual Conference of the National Association for Maternal and Child Welfare was attended by the Deputy Superintendent Health Visitor.

The winter series of lectures for the nursing staff of the department has been continued on the lines started several years ago. This year a series of lectures on Aspects of Mental Health has been given by Dr. J. T. Leyberg, Consultant Psychiatrist, Bolton District General Hospital. Although these lectures are arranged primarily for the nursing staff, they have been attended by other members of the department.

Training of Student Nurses and Other Visitors:

The Medical Officer of Health and the Deputy Medical Officer of Health have given lectures to the student nurses at the Bolton Royal Infirmary and the Bolton District General Hospital in accordance with the requirements of the General Nursing Council's syllabus. In addition to this, practical experience of the work of a Public Health Department has been given to all the nurses in training at the hospitals by their attending periodically in the Health Department in order to see the work of the health visitors and home nurses. This year the visit of the student nurses to the Health Department was followed by a discussion group held at the Training School. It was attended by the Medical Officer of Health, the Nursing Officers of the Health Department, the Sister Tutor and the student nurses. Points of interest which were raised during the visits of the students were discussed.

Pupil midwives taking their Part II training for the Central Midwives Board examination attended the child welfare centres for instruction in child care in accordance with their syllabus.

All health visitor students attending the course at the Technical College in Bolton received their introduction to Public Health by a visit to the Health Department at the beginning of the course. Four of these students subsequently were attached to the department for their practical training. Four senior health visitors were allocated to train these students in all aspects of a health visitor's work.

Practical training and demonstration for a few days was also given to student health visitors from the Manchester Technical College course.

Two doctors studying for the Diploma of Child Health received practical experience in various aspects of Public Health work in the department.

Home Visits:

As well as the normal duties accepted as the day to day work of the health visitors, such as the visiting in their homes of all children under the age of five years and the attendance at child welfare centres—(both these activities are for the purpose of giving advice on feeding, training and minor behaviour problems), the health visitors are taking an ever increasing part in solving problems and stimulating interest in positive health for all members of the family.

Analysis of Home Visits

First visits to expectant mothers	380
Subsequent visits to expectant mothers	423
First visits to newly-born babies	2,635
Subsequent visits under 1 year	12,680
Visits to children 1–2 years	8,273
Visits to children 2–5 years	16,941
Infant death enquiries	18
Infectious disease visits	81
After-care visits	393
Chronic sick visits	2,870
Visits in connection with Priority Re-housing on medico-social grounds	100
Visits in connection with the B.C.G. Survey:— Medical Research Council	627
Ineffective visits to households	6,091
Miscellaneous visits	1,298
TOTAL	52,810

The health visitors are finding that their services are required more and more in connection with the visiting of old people, especially those living alone. Many of these old folk are house bound and welcome the visits of the health visitor who is always alert to their needs, particularly as regards their diet and prevention of home accidents. If there appears to be the need for assistance the health visitor will call in the appropriate service—the family doctor, the home nurse, home help, welfare officer, National Assistance Board officer, or contact a relative or neighbour to help. One of the greatest trials of the aged person living alone is loneliness. Although the health visitor calls regularly, her time is too restricted to be able to stay and talk. They would be relieved of much anxiety about the old people in their areas if there was an extension of the visitation service by voluntary bodies to old persons living alone.

The selective visiting of children under the age of five years is inevitable due to the pressure of other work, but it is doubtful whether this is entirely satisfactory since the principle of health visiting is the visiting of all groups for the purposes of the prevention of illness.

Tuberculosis Visiting:

The three full-time health visitors who combine the work of tuberculosis visiting with that of attendance at Chest Clinic sessions have carried out the following visits:—

No. of visits to households	2,504
No. of visits to patients	2,672
No. of ineffective visits	603

Home visiting has been maintained and even increased although many patients are able to carry on their normal working life whilst undergoing chemotherapy. This has involved the health visitor in an increased number of evening visits, but has been useful in establishing family contact.

Geriatrics:

One health visitor was responsible for liaison with the Geriatric Physician and Geriatric Department of the Bolton District General Hospital. This system has worked well. The health visitor accompanies the Consultant and his Registrar on domiciliary visits and together they paid 151 home visits during the year. This is a decrease in the number of visits paid in 1957, but it may be due to the increasing reliance of the Consultant upon the social investigations and reports submitted to him by the health visitor. These social investigations on behalf of the Geriatric Department for patients on the waiting list were carried out in 279 instances.

Paediatrics:

The liaison between the Paediatric Physician and the health visitors has continued. The health visitors attend the paediatric out-patients and the ward rounds for the mutual exchange of information between the clinicians and the social workers. This liaison has the additional advantage of stimulating the health visitors' interest in recent developments in child care.

Health Education at Ante-Natal Clinics:

The inclusion of talks to expectant mothers at the ante-natal clinics has not proved satisfactory because of the lack of special facilities for teaching and the busy and crowded nature of these clinics. It was therefore decided to hold the mothercraft sessions at different times. A weekly mothercraft class was commenced in July, 1958 at the Civic Centre, Bolton. Special invitation was extended to expectant mothers attending domiciliary ante-natal clinics and later to mothers receiving ante-natal care at the local maternity homes. Numbers at the beginning were low, but the class has continued to grow and we have now a regular attendance of 16-20 mothers each session.

Each week a short talk or demonstration is given on one of the following subjects:—

Inportance of Ante-Natal Care

Diet in Pregnancy

Preparation for Confinement—room, equipment, layette, cot, the family.

Physical changes and minor ailments of Pregnancy

The Birth of the Baby—use of gas and air, Trilene

When Mother returns home with baby

Breast Feeding—Artificial Feeding

Vaccination and Immunisation

Accidents in the Nursery

Following this short talk free discussion is encouraged and mothers are able to discuss their individual problems as they arise. This class is held in quiet surroundings away from the hustle of a busy ante-natal clinic. In this atmosphere mothers are much more receptive to the teaching of mothercraft which is our primary aim.

From time to time we receive information of former members of the class who have had their babies and in some cases a detailed account of the delivery. Some mothers have also returned to display their babies with pride. All this tends to instil confidence in the expectant mother and proves the success of the teaching from the right source during the ante-natal period.

Attendance of Health Visitor at a Group Practice Surgery:

The weekly visits to a general practitioner's surgery in a group practice by the health visitor were continued during the year. Whilst liaison between the doctor and the health visitor concerned has been very good, it is disappointing to report that other group practices have not taken advantage of the services of a health visitor.

Many types of social problems were discussed, particularly those relating to the aged and chronic sick, the health visitor's follow-up visits in the home being particularly useful to the general practitioners concerned.

Liaison:

The good relationship between general practitioners, hospitals and other social agencies and the health visitors has been maintained and strengthened. This liaison and exchange of information has been most helpful in dealing with the social conditions of the community particularly in connection with the chronic sick and aged. The health visitors are very appreciative of the close co-operation they have had with the officers of the Welfare Department and National Assistance Board, and such organisations as the Bolton Moral Welfare Association, the Women's Voluntary Services, the National Society for the Prevention of Cruelty to Children, the Police, the Bolton Guild of Help, the Bolton Marriage Guidance Council, and the Bolton Committee of the National Society for Cancer Relief.

Special Investigations:

The follow-up work for the Tuberculosis Prevention Unit of the Medical Research Council has involved the health visitors in 627 visits.

Other national surveys from time to time are readily accepted as part of our contribution to research in the field.

The Prevention of Break-up of Families:

Problem Families are dealt with by the Care of Children Co-ordinating Committee and Working Sub-Committee. A visitor working from the local headquarters of the National Society for the Prevention of Cruelty to Children is engaged on case work with established problem families.

The health visitor appointed solely for work in connection with the prevention of break-up of families has had an average of fifty families under supervision during the year. The work has progressed steadily, and has shown that constant visiting and supervision makes its mark on these families. The fact that 39 families have been returned to routine visiting by the health visitors is evidence that if potential problem families can be found and dealt with at an early stage, a satisfactory solution can often be achieved at an earlier date.

Reasons for the case coming under care:

Incompatibility	3
Domestic difficulties	5
Illegitimacy	6
Ignorance and low mentality	8
Indolence and intemperance	5
Widowed with young family	4
Sickness, poverty, debts and unemployment	9
Instability of one or both parents	6
Family too large for income	4
Total	50 families

Result of health visitor's action:

Cases retained under special supervision	50
Returned to district health visitor as no longer in need of special supervision	39

Of the above 39 cases, 15 were returned to the district health visitor after temporary supervision which was required to overcome some acute crisis.

Assistance was required from other agencies in 62 cases as follows—

11 were referred to the Probation Officer
7 were referred to the National Society for the Prevention of Cruelty to Children
15 were referred to the National Assistance Board
2 were referred to the Marriage Guidance Council
5 were referred to the Family Planning Association
8 were referred to the Gas and Electricity Boards
3 were referred to the Bolton Guild of Help and the Mayor's Fund
7 were referred to the Welfare Department
4 were referred to Religious Bodies

There is no doubt that the recession in trade, particularly in the textile industry, has helped to create the difficulties which have occurred in many homes. This is especially so in the temporary cases where gas, coal, and electricity accounts have not been paid and heavy hire purchase payments have not been met.

In those cases where families have not made any attempt at budgeting and saving against emergencies, unemployment has caused swift calamity. Where the parents are of low mentality the position is aggravated.

It is encouraging to find that families experiencing difficulties of a temporary nature are now being helped to overcome a domestic crisis through the advice and assistance of the district health visitor in consultation with the specialist health visitor.

Nevertheless, many families still require a great deal of time, energy and patience spent on them before any improvement is discernible. One of the most difficult situations to deal with arises when husbands and fathers make no effort to accept their responsibilities as the bread winner of the family. Once a man gets into a state of apathy and is content to accept assistance from any source instead of providing for his family through his own efforts, it becomes a very difficult task for anyone to try and improve the family's standard of living.

The total number of visits paid by the specialist health visitor to these families during the year was 1,595.

The Care of Problem Families by the N.S.P.C.C. Visitor:

Complementary to the work of the special health visitor on Problem Families, there is in Bolton a woman visitor on the staff of the local branch of the National Society for the Prevention of Cruelty to Children who works in close co-operation with the department and with the Co-ordinating Committee for the Care of Children.

The visitor, for the year ending 31st December, 1958, has had 33 cases under her supervision. Of these 8 were closed as 'satisfactory' and 2, after unsustained progress, were handed back to the Inspector of the N.S.P.C.C. Thirteen new cases were taken on involving 37 children. All told 747 visits of supervision and 462 miscellaneous visits to public officials, voluntary organisations, etc., were made.

HOME NURSING

The administration of the service has continued on a non-residential basis and was controlled from the headquarters at the Civic Centre. The Home Nursing Section was open from 8.30 a.m. to 6.30 p.m. Calls after 6.30 p.m. were automatically transferred to the Ambulance Control Room. There was a rota of nurses on call for late evening visits and urgent night calls, and the necessary arrangements were made by the officer on duty.

Staff:

The staff at the 31st December was as follows:—

	Superintendent	
	Deputy Superintendent (Appointed 12/3/58)	
16	Queen's Nurses	(Full-time)
2	Queen's Nurses	(Part-time)
2	State Registered Nurses	(Full-time)
4	State Registered Nurses	(Part-time)
4	State Enrolled Assistant Nurses	(Full-time)
1	State Enrolled Assistant Nurse	(Part-time)
TOTAL NURSING STAFF: 29	Equivalent in full-time staff—25 excluding administrative staff.	

In addition, 4 students were taking the Queen's Nurse Training Course.

Included in the total are 4 male nurses full-time.

The staffing position has been satisfactory and the nurses have been more settled than in previous years. There have been 7 resignations (2 part-time), and 5 appointments in comparison with 11 resignations and 19 new appointments in 1957, and 19 resignations and 18 new appointments in 1956.

More nurses applied for district nurse training so that a selection could be made and, following training, the nurses were better prepared to deal with the problems which arise in the care of sick people in their own homes. There were more nurses undertaking full-time work than in previous years and this ensured continuity of care for the patients without the necessity of different nurses attending.

Statistics of Cases and Visits:

The following statistics of cases and visits show a slight increase in the number of cases remaining on the books and fewer new cases. The number of visits remained fairly constant with only slight variation between summer and winter.

	No. of patients being nursed at beginning of month in each year				New Cases				Nursing Visits			
	1955	1956	1957	**1958**	1955	1956	1957	**1958**	1955	1956	1957	**1958**
January	681	817	889	**927**	328	308	266	**295**	8,835	10,481	9,823	**10,495**
February	721	809	896	**946**	267	344	237	**245**	8,307	9,966	8,584	**9,348**
March	716	845	894	**932**	309	354	283	**273**	8,866	10,645	9,520	**10,226**
April	732	854	918	**913**	314	233	238	**242**	8,616	9,671	9,556	**9,520**
May	746	864	888	**899**	267	249	242	**229**	9,057	10,734	9,769	**9,452**
June	744	869	893	**895**	221	196	226	**201**	7,939	9,421	8,926	**8,851**
July	748	833	906	**889**	249	225	208	**224**	8,278	8,189	9,536	**9,060**
August	763	861	924	**914**	225	205	234	**196**	8,694	9,071	9,557	**9,354**
September	768	835	930	**918**	225	215	230	**198**	8,193	8,133	8,869	**9,458**
October	775	842	936	**911**	266	226	305	**231**	9,113	9,211	10,168	**9,731**
November	805	870	915	**925**	256	226	195	**225**	9,558	9,318	9,328	**9,110**
December	812	872	906	**936**	303	256	262	**251**	10,330	9,323	9,713	**9,896**
TOTALS:					3,230	3,037	2,926	**2,810**	105,786	114,163	113,349	**114,501**

Patients being nursed on the 1st January ...	927
New patients attended during the year	2,810
TOTAL CASES NURSED	3,737

NURSING VISITS IN AGE GROUPS:

	CASES	VISITS
Children under 5 years	124	895
5-64 years	1,601	42,287
65 years and over	2,012	71,319
TOTALS	3,737	114,501

The nurse frequently paid more visits during the main holiday periods when relatives, who ordinarily undertake most of the care of their invalids and old people, arrange to go away for a holiday. The nurse would possibly attend twice daily when the patient was alone in the house and arrangements were made with friendly neighbours to look in and help with meals and other domestic duties.

CLASSIFICATION OF CASES NURSED BY CONDITION AND AGE:

Condition	Age Groups		
	0–4 years	5–64 years	65 years and over
Tuberculosis	3	120	6
Other infectious diseases	–	15	20
Parasitic diseases	–	–	–
Malignant and Lymphatic neoplasms	–	95	111
Asthma	1	10	5
Diabetes mellitus	–	30	42
Anaemias and Debility	–	135	206
Vascular lesions affecting the Central Nervous System	–	50	236
Other mental and nervous diseases	–	47	43
Diseases of the Eye	–	4	3
Diseases of the Ear	36	40	3
Diseases of the Heart and Arteries	–	145	396
Diseases of the Veins	–	17	35
Upper Respiratory diseases	18	88	7
Other Respiratory diseases	40	172	176
Constipation	5	78	97
Other diseases of the Digestive System	6	78	47
Diseases of the Urinary System and Male Genital organs	1	47	35
Diseases of the Breast and Female Genital organs	–	58	115
Complications of Pregnancy and the Puerperium	–	48	–
Diseases of the Skin and Subcutaneous Tissues	5	61	39
Diseases of Bones, Joints and Muscles	1	61	94
Injuries	3	28	41
Senility	–	1	211
Other defined and ill-defined diseases or disabilities	4	15	6
Diseases not specified	1	158	38
TOTALS	124	1,601	2,012
GRAND TOTAL	3,737		

It is of interest to compare the results with those for 1957 regarding the type of case nursed. Tuberculosis showed a decrease in numbers. There have been fewer children nursed at home and this tendency has continued for several years. Most of the visits to children have been made to cases of bronchitis, pneumonia and otitis media, chiefly to administer injections of penicillin or other antibiotics.

Nursing Treatments:

The number of visits for actual nursing care has increased slightly and the number of injections has decreased as can be seen in the following tables:—

Injection Therapy:	1957	1958
Insulin	13,646	**13,377**
Streptomycin	12,470	**10,246**
Penicillin	5,831	**5,922**
Drugs for cardio-renal diseases (Mersalyl, Neptal, etc.)	14,078	**12,308**
Drugs for Anaemia, Debility, etc. (Anahaemin, Cytamen, etc.)	8,540	**10,568**
Miscellaneous	1,090	**1,093**
Narcotics	660	**968**
Totals	56,315	**54,482**

Treatments other than injections:	1957	1958
Enemas	1,475	**1,343**
Bed Baths	9,046	**9,566**
Dressings	13,773	**13,594**
Attention to pessaries	565	**588**
Wash-outs, douches, catheterising	1,587	**1,920**
Bedside nursing	37,894	**38,307**
Preparation for X-ray investigation	107	**218**
Others	3,748	**3,387**
Minor operations	11	**8**
Totals	68,206	**68,931**

Summary of Nursing Treatment:	1957	1958
Nursing Care	68,206	**68,931**
Injections	56,315	**54,482**
Totals	124,521	**123,413**

Because of increasing debility and failing senses among the aged with the consequent neglect in keeping themselves clean especially in the cold winter months, the nurses were asked to attend to bath many more people than in former years. This enables them to know the needs of many elderly people on their areas and to give assistance when necessary.

Disposal of Cases:

Month	Fully recovered	Removed to Hospital	Died	Not recovered but not requiring further nursing	Total
January ..	134	49	50	43	276
February ..	118	54	51	36	259
March	134	61	55	42	292
April	123	44	59	30	256
May	103	48	46	36	233
June	91	42	31	43	207
July	94	36	25	44	199
August	82	43	32	35	192
September ..	95	33	28	49	205
October ..	103	41	34	39	217
November ..	102	31	35	46	214
December ..	113	53	44	35	245
TOTALS ..	1,292	535	490	478	2,795

Transport:

Four cars owned by the Corporation were in use and there were also five nurses using their own cars and receiving allowances as 'essential users'. A sixth nurse intends to apply for the allowance in due course. The cars have proved very useful and the nurses have appreciated being able to travel speedily and comfortably to their patients unaffected by the wet and cold weather. I think this has contributed to the fact that there has been less sickness among the home nurses than in former years.

There are three motor scooters and six bicycles owned by the Corporation, but these are not regularly used in the winter months because of weather conditions and the heavy traffic on Bolton roads.

Queen's Nurse Training:

Training of home nurses has continued as in previous years, the practical part being taken in Bolton, and the theoretical part being taken in a four weeks' course in Manchester. Six nurses were trained during the year and were successful in passing the examination of the Queen's Institute of District Nursing.

Nursing Equipment:

A detailed list of equipment loaned to patients is given on page 67.

Laundry Service:

We have continued to supply clean bed linen to incontinent patients and this has proved of great value to the home nurses and has been appreciated by relatives. One hundred and twenty-eight incontinent patients have been assisted during the year. The numbers of patients receiving deliveries of clean draw sheets, pyjamas, etc., have varied between 28 and 36 daily in the summer months, and 36 to 45 during the winter months.

The Hospital Management Committee has continued to allow facilities for laundering soiled linen at Bolton District General Hospital throughout the year.

Treatment Sessions in the Health Department:

The number of patients attending the Home Nursing Section for intramuscular injections was reduced to 62 and the attendances were 4,182, compared with 91 patients and 4,924 attendances in 1957. The number of patients suffering from tuberculosis and receiving injections of streptomycin had declined. Treatment was made available for ambulant patients between 2.30 p.m. and 6.30 p.m. each day.

Training of Hospital Nurse Students:

In connection with their training, and to include a wider knowledge of services outside hospital, student nurses have again accompanied home nurses on their rounds to see the nursing of patients in their own homes. A total of 39 nurses had this experience and this year the visits were followed up by a group discussion on the social aspects of disease led by members of the Health Department medical and nursing staff. Judging by the questions asked, the student nurses had been extremely interested and had gained in experience by these visits.

VACCINATION AND IMMUNISATION

Vaccination against Smallpox:

When the National Health Service Act became operative in July, 1948, vaccination ceased to be compulsory. Local authorities and general practitioners took over this work from the Public Vaccinator. Since that time parents have been able to have their children vaccinated in the Infant Welfare Clinics.

There is still some prejudice against smallpox vaccination. Some parents fear that it will cause large unsightly scars, and that complications may result in serious illness. Modern techniques of vaccination have done much to remove these fears, and it is encouraging to find that the percentage of infants vaccinated in Bolton continues to rise:—

PERCENTAGE OF CHILDREN VACCINATED IN RELATION TO BIRTHS DURING THE YEAR:

1949—14% of children under 1 year vaccinated
1950—21% „ „ „ „ „ „
1951—21% „ „ „ „ „ „
1952—23% „ „ „ „ „ „
1953—34% „ „ „ „ „ „
1954—42% „ „ „ „ „ „
1955—46% „ „ „ „ „ „
1956—41% „ „ „ „ „ „
1957—49% „ „ „ „ „ „
1958—50% „ „ „ „ „ „

Smallpox still visits this country occasionally. The risk of its importation is increased by the large amount of international travel nowadays, and increasing vigilance has to be maintained by Port Health and Airport Authorities. For this reason we continue to urge parents to have their children vaccinated, preferably at the age of three or four months.

NUMBER OF PRIMARY VACCINATIONS UNDER 5 YEARS OF AGE:

1952	639	
1953	1,255	(local cases of smallpox)
1954	1,076	
1955	1,098	
1956	1,073	
1957	1,248	
1958	**1,304**	

The bulk of this work was carried out by medical officers at the Child Welfare Centres.

The above figures include the following children who were primarily vaccinated by family doctors:—

Under 1 year	310
1 – 5 years	36
TOTAL	346

Summary of Vaccinations

	Age at date of Vaccination							TOTAL
	Under 3 months	3 to 6 months	6 to 11 months	1 year	2 to 4 years	5 to 14 years	15 years and over	
No. Vaccinated ..	229	908	114	25	37	40	104	1,457
No. Re-vaccinated	–	–	–	–	8	11	238	257

Record cards were received from general practitioners during 1958 relating to persons vaccinated in 1957 which had not been previously recorded, as follows:—

PRIMARY VACCINATIONS:	Under 1 year	6
	1 to 4 years	–
	5 to 14 years	1
	15 years and over	5
RE-VACCINATIONS:	15 years and over	4

(These figures are included in above totals)

Vaccination against Poliomyelitis:

During 1958 poliomyelitis vaccination was continued on an increased scale. The decision of the Government in November, 1957, to import Salk vaccine from Canada and the U.S.A. made large quantities available. A total of 24,000 persons received second doses of vaccine in 1958 compared with less than 4,000 in the previous year. To cope with these numbers the popular Saturday morning sessions at the Health Department were continued, and many extra sessions were put on. Head teachers were asked to distribute forms of consent to poliomyelitis vaccination in their schools for signature by parents so that special sessions could be arranged.

In May, 1958, the Government, acting on the advice of the Medical Advisory Council, decided that Salk vaccine that had been tested and licensed for use in Canada or the U.S.A., but not retested in Britain, should be provided for use in this country. This had the welcome effect of easing the supply situation. In the absence of a poliomyelitis epidemic it was decided to push ahead with the programme through the summer months.

Early in September the Ministry of Health announced the decision to extend the age limit for poliomyelitis vaccination. All those born in the years 1933 to 1942 were now to be included. Vaccination was also to be offered to hospital staff in contact with patients, to medical students and to the families of these groups.

At first the response from those aged 15 to 25 was slow, and the Local Health Authority endeavoured to overcome this by circularising firms in the area who employed numbers of young people, and offering to hold special sessions at the place of work. Industry's response was wholehearted, and a large number of special sessions were arranged on the premises of local firms. Medical officers also visited local hospitals to vaccinate their staff.

It was decided to start open sessions in November, where young people could attend the Health Department and be vaccinated there and then without prior registration. Advertisements were put into local papers and the initial response was quite good, but unfortunately the demand soon lessened.

The progress of the poliomyelitis vaccination campaign during 1958 is shown in the following chart. The year is divided into six two-monthly periods:—

	Jan. and Feb.	March and April	May and June	July and August	Sept. and Oct.	Nov. and Dec.
Awaiting vaccination..	5,299	3,800	3,346	1,259	1,674	802
Had first injection	2,963	3,097	4,180	1,622	4,296	2,295
Had second injection..	1,720	2,324	6,041	6,381	2,314	5,290

4,076 persons had completed the course of three injections by the end of 1958.

Immunisation against Diphtheria, Whooping Cough and Tetanus:

The timing of the various immunisations is to some extent a compromise, and several factors have to be taken into consideration. For example, the infant has to be a certain age before a satisfactory immune response occurs, yet the earlier the immunisations are completed, the sooner is the child protected. The following schedule is in use in Bolton and seems to be satisfactory.

Vaccination against Smallpox	Preferably at 3 months of age.
Primary Immunisation ... (against Whooping Cough, Diphtheria and Tetanus)	... At 4 months old, completing the course of three injections at monthly intervals at 6 months.
Booster Immunisation ...	... At 5–6 years. This is usually carried out either at the Infant Welfare Centre, or at school during the first school year.
Poliomyelitis Vaccination	... Over the age of 6 months.

Since January, 1957, it has been the practice in the Child Welfare Centres to use triple antigen incorporating antigens against diphtheria, whooping cough and tetanus. This method has been continued throughout 1958. The majority of family doctors also used triple antigen for primary immunisation in infancy. Single antigens and combinations of two antigens are available to meet the requirements of special cases.

Source of Immunisation

	Diphtheria Immunisation only	Diphtheria and Tetanus	Combined Whooping Cough and Diphtheria	Triple Antigen	Whooping Cough only	Tetanus only	Re-inforcing Injections	
							Diphtheria only and Whooping Cough and Diphtheria Combined	Triple Antigen
No. of Children Immunised at Child Welfare Centres ..	4	2	1	1,240	8	2	30	5
No. of Children Immunised in Schools	114	–	203	–	4	–	811	–
No. of Children Immunised by General Practitioners and for whom a record card was received by the Health Department	15	–	67	299	1	–	50	12
TOTALS	133	2	271	1,539	13	2	891	17
GRAND TOTAL ..	2,868							

After two years of using triple antigen there is now a substantial number of children in Bolton who have been immunised against tetanus. These children do not need to be given anti-tetanus serum if they sustain a laceration, and it was arranged that general practitioners and hospital staff should be able to telephone the Health Department to find out the tetanus immunisation state of casualties, if they were in any doubt. A scheme whereby children immunised against tetanus should wear a small grey plastic disc was not successful because it was impossible to rely on them wearing it.

Only 133 children were immunised against diphtheria alone. Most of these were school children who had already suffered from whooping cough and did not therefore need the combined innoculation.

Recent studies show that Formol Toxoid is preferable to Alum Precipitated Toxoid as the protective antigen against diphtheria, because there is less risk of provoking paralysis in subjects who are incubating poliomyelitis. In view of this, the use of Alum Precipitated Toxoid by the Health Department was discontinued and Formol Toxoid used instead.

Age at Immunisation

	Completely Immunised						Re-inforcing Injections		Totals
	Diphtheria Immunisation only	Diphtheria and Tetanus	Combined Whooping Cough and Diphtheria	Triple Antigen	Whooping Cough only	Tetanus only	Diphtheria only and Whooping Cough and Diphtheria Combined	Triple Antigen	
2–8 months	4	–	27	1,072	1	–	–	–	1,104
9–11 months	–	–	23	249	–	–	–	–	272
1–2 years	3	–	15	159	–	–	–	–	177
2–3 years	2	–	–	26	–	–	–	–	28
3–4 years	2	1	1	16	–	–	15	1	36
4–5 years	6	1	11	5	–	–	74	8	105
Total 0–5 years	17	2	77	1,527	1	–	89	9	1,722
5–6 years	91	–	191	6	10	–	757	9	1,064
6–7 years	21	–	2	1	2	–	34	–	60
7–8 years	1	–	–	2	–	–	6	–	9
8–9 years	–	–	–	–	–	–	1	–	1
9–10 years	–	–	–	2	–	–	–	–	2
10–11 years	1	–	1	–	–	1	–	–	3
11–12 years	–	–	–	–	–	–	2	–	2
12–13 years	–	–	–	–	–	–	–	–	–
13–14 years	–	–	–	1	–	–	–	–	1
14–15 years	–	–	–	–	–	–	1	–	1
Total 5–15 years	114	–	194	12	12	1	801	9	1,143
Grand Total	131	2	271	1,539	13	1	890	18	2,865

Diphtheria Immunisation in relation to Child Population

Age Group	Percentage of mid-year Population completely immunised
Under 1 year	57·7
Aged 1–4 years	63·9
Aged 5–14 years	81·2
TOTAL UNDER 15 YEARS ..	75·1

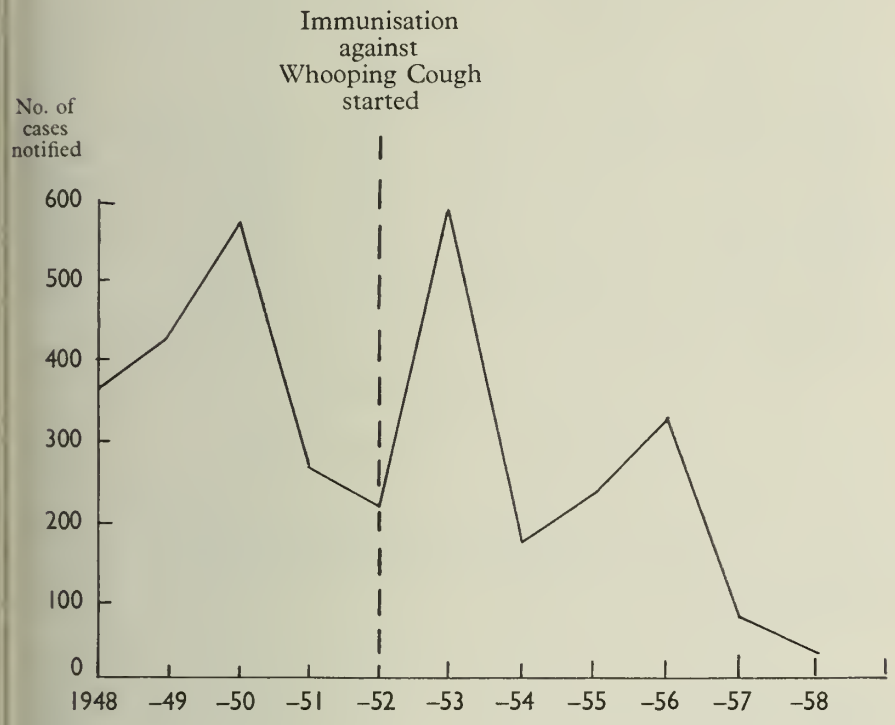
Diphtheria Immunisation

The following table shows the number of children immunised during the past fourteen years :—

Age at date of inoculation	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	Totals
Under 1 yr.	54	103	425	756	799	835	698	651	671	1005	1323	1205	1278	1375	
1–2 years	1253	1121	1037	1115	657	606	670	638	588	554	414	187	196	177	
2–3 ,,	243	171	101	103	124	94	76	100	79	70	110	48	35	28	0–5 years 7,338
3–4 ,,	120	128	67	59	48	72	60	63	43	42	58	32	24	20	
4–5 ,,	68	105	69	75	58	53	46	56	90	49	69	37	32	23	
5–6 ,,	53	54	36	100	114	93	58	164	260	490	673	359	326	288	
6–7 ,,	49	59	17	77	94	83	35	163	249	35	88	57	65	24	
7–8 ,,	41	67	11	33	37	63	21	64	151	9	12	4	2	3	5–10 years 10,042
8–9 ,,	26	57	16	20	26	54	5	32	162	3	2	2	1	–	
9–10 ,,	26	54	20	16	23	43	1	2	26	–	4	3	–	2	
10–11 ,,	23	54	4	5	9	7	2	1	10	–	3	1	–	2	
11–12 ,,	6	43	5	3	–	9	–	–	17	–	2	–	1	–	
12–13 ,,	15	35	2	1	1	2	–	1	10	–	–	–	–	–	10–15 years 9,463
13–14 ,,	16	12	1	–	–	–	–	1	15	–	2	–	–	1	
14–15 ,,	2	2	1	1	–	1	–	–	5	–	–	–	–	–	
15 years and over	–	3	18	2	1	2	6	1	2	1	1	–	2	2	Over 15 years 2,278
Totals	1995	2068	1830	2366	1991	2017	1678	1937	2378	2258	2761	1935	1962	1945	29,121

Since immunisation against whooping cough was introduced in 1952 there has been a great decline in the number of cases of whooping cough notified.

Incidence of Whooping Cough in Bolton, 1948 to 1958



This is good evidence that immunisation against whooping cough is succeeding in controlling the infection.

Number of cases of whooping cough notified, 40

32 were 5 years and under

8 were over 5 years

10 children under 5 had been immunised

1 child over 5 had been immunised

AMBULANCE

The Local Health Authority continued to provide full ambulance cover within its own area and also on an agency basis for Lancashire County Council in the Turton Urban District area and for the National Coal Board at its collieries within the Borough. The following tables show the total mileage and the total number of patients carried during the past four years.

Total Mileage

	1955	1956	1957	**1958**
Ambulances	75,138	73,726	64,464	**68,751**
Sitting Case Vehicles	87,612	87,852	93,806	**93,311**
TOTALS	162,750	161,578	158,270	**162,062**

Total Number of Patients Carried

	1955	1956	1957	**1958**
Ambulances	18,874	18,802	15,930	**16,150**
Sitting Case Vehicles	31,622	32,563	33,653	**33,771**
TOTALS	50,496	51,365	49,583	**49,921**
Average mileage per patient	3·22	3·15	3·19	**3·25**

It will be seen that the number of patients carried in 1958 was virtually the same as in 1957 although the total mileage increased slightly. Possibly the only significance of this is that it reflects to some degree a tendency for the population to move further towards the perimeter of the town as slum clearance policies begin to take effect.

Monthly Analysis of work done by the Ambulance Service:

Bolton*

Month	Patients carried by			Miles travelled by		
	Ambulances	Sitting Case Vehicles	Total	Ambulances	Sitting Case Vehicles	Total
January	1,542	2,643	4,185	5,353	6,899	12,252
February	1,282	2,425	3,707	4,968	6,318	11,286
March	1,253	2,769	4,022	4,901	6,658	11,559
April	1,275	2,401	3,676	4,650	6,316	10,966
May	1,213	3,042	4,255	4,582	7,408	11,990
June	1,228	2,609	3,837	5,376	6,814	12,190
July	1,262	2,464	3,726	5,187	6,380	11,567
August	1,259	2,641	3,900	5,578	6,505	12,083
September	1,359	2,493	3,852	5,416	5,956	11,372
October	1,146	2,715	3,861	5,314	6,081	11,395
November	1,248	2,553	3,801	5,164	5,740	10,904
December	1,414	2,549	3,963	5,963	5,976	11,939
TOTALS ..	15,481	31,304	46,785	62,452	77,051	139,503

*Includes agency work for National Coal Board and some 'knock for knock' journeys for neighbouring authorities.

Agency Service for Lancashire County Council in area of Turton Urban District Council

Month	Patients carried by			Miles travelled by		
	Ambulances	Sitting Case Vehicles	Total	Ambulances	Sitting Case Vehicles	Total
January	55	175	230	531	1,581	2,112
February	51	162	213	456	1,236	1,692
March	49	189	238	464	1,317	1,781
April	51	152	203	567	1,045	1,612
May	53	165	218	443	1,211	1,654
June	66	168	234	572	1,170	1,742
July	55	237	292	527	1,493	2,020
August	56	243	299	568	1,643	2,211
September	66	261	327	586	1,502	2,088
October	74	281	355	650	1,472	2,122
November	37	230	267	402	1,284	1,686
December	56	204	260	533	1,306	1,839
TOTALS ..	669	2,467	3,136	6,299	16,260	22,559

Arrangements were made for 13 patients to be conveyed by rail.

Emergency Calls:

Bolton Emergencies and Special Journeys

Type of Case	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Burns	1	4	4	4	1	–	–	3	2	3	2	6	30
Scalds	5	–	5	5	4	2	5	5	6	4	7	5	53
Falls	14	24	24	29	24	24	20	23	19	28	27	34	290
Gas and Electricity Mishaps	3	1	4	5	3	6	2	–	5	3	4	3	39
Poisonings	3	5	1	3	3	5	4	4	–	2	4	13	47
Collision with structures	–	–	1	2	–	1	–	1	2	2	2	3	14
Cuts (other than from falling)	6	3	3	4	9	2	4	7	9	2	6	3	58
Falling objects	–	–	2	1	–	–	1	–	4	2	1	1	12
Trapping of limbs	–	–	2	1	–	2	2	3	–	1	4	–	15
Swallowing foreign bodies (other than poisons)	1	–	–	–	2	1	2	2	2	3	4	1	18
TOTAL OF ALL ACCIDENTS IN THE HOME	33	37	46	54	46	43	40	48	49	50	61	69	576
Road Accidents	35	26	19	46	36	48	32	44	46	48	60	41	481
Collapse	29	35	36	32	40	38	38	28	36	41	38	40	431
Industrial Accidents	25	17	14	18	16	19	20	13	17	19	12	15	205
Sudden Illness	30	17	31	20	20	24	17	26	18	16	26	21	266
Falls in the Street	28	11	18	23	19	16	17	13	13	18	17	17	210
Children injured at school or at play	21	19	17	37	39	36	42	53	38	27	22	12	363
Violence—													
Fights and Drunks	4	1	2	–	1	6	4	4	6	7	2	13	50
Assaults	1	2	–	1	–	2	7	2	2	1	–	1	19
Drowning	–	–	1	–	–	–	1	–	–	–	–	–	2
Falls in shops or places of entertainment	1	3	3	2	4	2	4	5	4	4	2	5	39
Sporting Accidents	1	–	4	4	2	2	4	6	3	4	1	2	33
Attacks by animals and insects	–	1	1	–	–	2	2	1	1	–	2	2	12
Fairground Accidents	–	–	–	–	–	1	9	–	–	–	–	1	11
Horseriding Accidents	–	–	–	–	1	–	–	–	–	–	–	1	2
Railway Accidents	1	–	–	–	–	–	–	–	–	1	1	1	4
Miscellaneous	11	14	11	11	17	18	13	10	5	7	11	1	219
TOTAL EMERGENCIES	220	183	203	248	241	257	250	253	238	243	255	242	2,833
MATERNITY CASES	194	171	155	154	154	141	151	151	153	145	123	158	1,850
Births in Ambulances	–	–	–	–	–	–	–	–	1	–	–	–	1
Born before arrival of Ambulance	2	–	1	–	1	–	2	1	2	–	1	–	8
TOTAL MATERNITY CASES	194	171	156	154	155	141	153	152	156	145	124	158	1,859
LONG JOURNEYS (60 miles or more)	3	1	6	4	4	7	4	7	3	5	2	2	48
TRANSPORT OF MID-WIVES AND GAS AND AIR APPARATUS	10	15	11	17	17	11	15	26	9	12	17	11	171

Once again it is significant that home accidents account for considerably more work for the Ambulance Service than road accidents.

Turton District Emergency and Maternity Cases

Type of Case	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Burns	1	–	–	–	–	–	–	–	–	–	–	–	1
Falls	2	3	–	2	2	2	2	2	–	3	1	1	20
Gas and Electricity Mishaps	1	4	–	1	–	–	1	1	–	–	–	–	8
Poisonings	–	–	–	1	1	–	–	–	–	2	–	–	4
TOTAL OF ALL ACCIDENTS IN THE HOME	4	7	–	4	3	2	3	3	–	5	1	1	33
Road Accidents ..	4	3	4	5	–	8	4	5	2	8	3	2	48
Collapse	2	1	2	1	3	–	2	1	–	2	–	–	14
Industrial Accidents	1	–	1	–	2	3	2	–	3	3	2	4	21
Sudden Illness ..	2	–	–	–	1	–	–	1	1	–	–	1	6
Falls in the Street..	–	–	1	1	1	–	1	–	–	–	2	–	6
Children injured at school or at play ..	–	2	1	1	1	2	–	2	1	2	1	–	13
Violence— Fights and Drunks	1	–	–	1	–	–	–	–	–	–	–	–	2
Drowning..	–	–	–	–	–	–	2	–	–	–	–	–	2
Sporting Accidents..	–	–	–	–	–	–	1	2	–	–	–	–	3
Attacks by animals and insects	–	–	–	–	–	–	–	1	–	–	–	–	1
Miscellaneous	2	–	–	2	–	–	1	–	–	–	–	–	5
TOTAL EMERGENCIES..	16	13	9	15	11	15	16	15	7	20	9	8	154
TOTAL MATERNITY CASES	4	10	8	10	10	8	8	8	7	4	5	6	86

National Coal Board

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ndustrial Accidents..	1	2	6	8	2	2	2	5	2	3	2	1	36

Total Mileage for Collieries ... 313

Plane Crash at Winter Hill

At about 10 o'clock on the morning of the 27th February, 1958, a passenger aircraft on a charter flight from the Isle of Man to Manchester crashed near the summit of Winter Hill on which is situated the Independent Televison Authority's transmitting station. This hill, 1,400 ft. high, overlooks the town from the North West. On the day of the crash it was heavily shrouded in mist and the whole countryside lay under heavy snow. It is considered that under normal conditions a motor vehicle will reach the summit of Winter Hill from the middle of Bolton in a little under half an hour. On the day of the air

crash this same journey took three hours. There was no shortage of help available but the leading ambulances eventually arrived on the scene after following a snow plough and a party of men from a nearby quarry who dug out a single line path for the vehicles.

The following report was made by one of the two shift leaders who were in charge of the Bolton ambulances there.

> "I went along with the Bolton Ambulances "King", "Easy" and "George". At the I.T.A. road junction with George's Lane, Horwich, we were halted. Ploughs were clearing the snowdrifts here. Leaving the machines parked here under police control and in care of our drivers, the remainder of us proceeded on foot with our Crash First Aid Kits to the I.T.A. Station on Winter Hill. A First Aid Station was set up here and together with the Lancashire County Ambulance crews we rendered first aid to the injured and worked with the doctors who came from Horwich.
>
> When the ambulances got through we had the injured loaded and dispatched to the Bolton Royal Infirmary.
>
> Our ambulances then returned to the scene and transported the dead bodies from the crash to the I.T.A. Station where a temporary mortuary had been set up under control of the Chief Constable of Lancashire who arrived at the scene.
>
> Some time later a mortuary was established in a Horwich church and 34 bodies were transferred there by Bolton and County Ambulances.
>
> I kept liaison with Mr. Williams at Bolton Station by phone from the I.T.A. Station. There was only one telephone line here and the use of it was strictly rationed by the police, so great were the demands.
>
> The arrival of a supply of 24 stretchers by the Belmont route from Bolton Station was very timely, for when ambulances were away, I got police help to load our dead on to these stretchers and ensure a quick turn round of traffic.
>
> We finally made a survey of the crash scene, collected all equipment and returned it by an ambulance to Bolton.
>
> I joined the last ambulance to leave the scene and proceeded to Horwich Mortuary and made a quick survey of equipment there.
>
> We arrived back at the station at 18.30 hours."

Unhappily, because of the high proportion of people killed in the crash the Major Accident Organisation, which was brought into action very speedily after the first news of the crash was received, was not thoroughly tested. Only five survivors were removed from the plane. Nevertheless it was felt by all who had taken part in the Organisation that although many lessons were learn and some weaknesses revealed, the basic scheme for dealing with major catastrophies in this area is sound.

Vehicle Strength at 31st December, 1958:

Make	H.P.	Reg. No.	Purchase Date	Total Mileage
AMBULANCES:				
Austin	27	EWH 345	23. 8.51	55,647
Austin	16	JWH 660	9. 3.56	23,347
Austin	16	JWH 699	9. 3.56	27,979
Austin	16	LBN 22	20. 7.57	16,780
Austin	16	MWH 100	29. 4.58	10,461
Austin	16	MWH 101	29. 4.58	9,837
SITTING CASE AMBULANCES:				
Morris	16	FWH 333	13. 3.53	76,184
Morris	16	GBN 999	10. 3.54	72,451
Morris	16	HWH 499	6. 4.55	40,874
Bedford	14	LBN 20	8. 3.57	32,164
Bedford	14	LBN 21	21. 3.57	28,245
SITTING CASE CARS:				
Austin	16	CWH 626	28. 4.48	96,560
Austin	16	EWH 222	6. 6.51	152,258

Two ambulances were replaced during the year. The new vehicles were built to specification on the B.M.C. L.D.2 low-loading chassis with the off-set back axle.

Staff at 31st December:

Superintendent

Deputy Superintendent

1 Liaison Officer (Bolton Royal Infirmary)

4 Shift Leaders

25 Driver/Attendants

1 Female Attendant

2 Motor Mechanics

1 General Labourer/Greaser

The liaison officer has been stationed at the Bolton Royal Infirmary now for almost three years. During that time the value of this arrangement has been proved beyond doubt. He was, of course, originally put there to help the turn-round of Bolton County Borough ambulances. In the event, however, he helps to maintain a steady flow of patients out of the hospital into ambulances belonging to many neighbouring authorities. This was no doubt an inevitable development once the scheme began to succeed. It is, too, a welcome development, aiding hospital staff, ambulance authorities and, most of all, patients.

Civil Defence—Ambulance and Casualty Collecting Section:

There were 270 volunteer members of the section.

Standard training comprises First Aid, Civil Defence Organisation and Routine, Ambulance Loading Drill, Elementary Rescue, Map Reading, Damage Control, and Care and Maintenance of Vehicles and covers a total period of 58 hours. The course was completed by 29 members of the section and a further 40 members were partly trained. In all, 70 members of the section are regularly attending for training.

In this year's North Western Civil Defence Regional Tourney six members of the section were included in the Bolton team which was placed eleventh out of twenty-seven teams competing, with 68 per cent of possible marks.

Three shift leaders of the Borough Ambulance Service are certificated instructors to the Ambulance and Casualty Collecting Section of the Civil Defence Corps.

Ambulance Control Room:

The Control Room continued to be a general sorting room for a variety of applications for service outside normal working hours. As in previous years, these have included messages for district nurses and general practitioners and requests for emergency transport of midwives, oxygen and the Hospital Flying Squad Service.

LOAN OF NURSING EQUIPMENT—CONVALESCENCE

Loan of Nursing Equipment:

A further slight increase in loans of equipment indicates the popularity and necessity of having this type of article available. The growth of the service has been extremely rapid in recent years.

Article	Number Available	No. issued during Quarter				Total for 1958	No. in stock at 31st Dec., 1958
		Mar.	June	Sept.	Dec		
Bed Pans	142	60	63	47	50	220	--
Rubber Bed Pans	4	1	3	1	1	6	3
Air Rings	142	58	37	41	34	170	1
Tan Sad Invalid Chairs	49	4	12	10	3	29	6
Junior do.	7	–	–	2	–	2	–
Self-propelled Chair	2	2	–	–	–	2	1
Bed Rests	128	43	43	38	38	162	4
Bed Cradles	18	4	7	9	6	26	3
Single Beds	10	4	–	–	3	7	3
Iron Lifting Poles	6	3	–	–	2	5	3
Cot—Junior	1	1	–	–	–	1	1
Mattresses—Sectional, Dunlopillo	1	–	1	–	1	2	1
,, —Hair	4	1	2	–	1	4	3
,, Interior Spring	3	–	–	–	–	–	–
,, —Dunlopillo	13	3	–	1	1	5	–
Cushion—Float-on-Air	1	–	–	–	–	–	1
Biscuit Mattresses	2	–	–	–	–	–	–
Mattress Covers	9	–	–	–	2	2	7
,, ,, —Plastic	6	4	1	1	–	6	–
Pillows—Feather and Flock	17	7	–	–	2	9	–
,, —Dunlopillo	1	–	–	1	1	2	–
Beadspreads	6	–	–	–	–	–	6
Blankets	24	4	–	2	2	8	17
Sheets—Cotton	95	–	–	–	2	2	31
Draw Sheets	389	168	168	104	111	551	146
Pillow Cases	48	10	3	6	3	22	47
,, ,, —Plastic	11	1	–	–	3	4	6
Pyjama Jackets	134	69	57	54	61	241	19
,, Trousers	4	–	–	–	–	–	4
Nightshirts	29	3	12	–	–	15	21
Nightdresses	10	5	8	4	1	18	10
Rubber Sheets	345	102	112	66	66	346	61
Towels	60	10	–	5	–	15	27
Urinals	88	41	34	19	34	128	3
Fracture Boards	7	–	–	–	–	–	5
Chair Commodes	14	5	3	5	3	16	3
Sani-Chair—Self-propelled	1	–	–	–	–	–	1
Crutches	16	3	4	–	2	9	8
Tripod Walking Sticks	3	–	3	1	–	4	1
Pails (with lids)	48	29	30	16	17	92	13

Total number of articles issued in	**1958** ...	**2,131**
,, ,, ,, ,, ,, ,,	1957 ...	1,996
,, ,, ,, ,, ,, ,,	1956 ...	1,994
,, ,, ,, ,, ,, ,,	1955 ...	1,475
,, ,, ,, ,, ,, ,,	1954 ...	899
,, ,, ,, ,, ,, ,,	1953 ...	901
,, ,, ,, ,, ,, ,,	1952 ...	522

Convalescent Home Accommodation:

During the year there were 36 applications for convalescence in respect of 26 adults and 10 children. Subsequently 3 applications were withdrawn.

All but one of the applicants were interviewed as to their suitability for convalescence by medical officers of the department. The one applicant not interviewed was a child who went straight to the convalescent home from Bolton District General Hospital on the Consultant Paediatrician's recommendation.

Twenty-four adults and 9 children were accepted for periods varying from two to four weeks and of these, 16 adults were admitted to the Bolton and District Hospital Saturday Council's Homes at Blackpool, St. Annes-on-Sea, and Southport. The remainder were sent to various other homes.

The Local Health Authority paid full fees for accommodation in 27 cases and the other 4 patients paid part of the cost. There was no charge for the two children admitted to the Ormerod Children's Home, St. Annes-on-Sea.

HOME HELP

The need to expand the service became increasingly apparent. Far too many cases were left without assistance for two or three weeks at a time because of the heavy demands from chronic sick and bedfast patients. Every request for help was carefully investigated and existing cases constantly reviewed in order that the available help could be used as equitably as possible. Once the service has accepted responsibility for an old person, the need usually continues for the remainder of the applicant's life and consequently the case load increased as each month went by. In January, 654 cases were served and in December, 718 cases were on the books. The organiser was greatly assisted by the restraint shown by those referring cases, particularly the general practitioners, officers of the Health Department, the Welfare Department, National Assistance Board, hospital almoners and the voluntary social agencies who requested help only for cases of a serious nature.

The vast majority of cases continued to be from the aged and infirm section of the community classified as chronic sick in the table below.

Bedfast and Housebound Patients:

Daily help was provided for these cases but it was seldom possible to give more than two hours daily. Homes must be kept clean, meals provided, pensions collected and the patient's personal needs attended. A more generous provision of help would have greatly added to the comfort of sick and elderly patients.

Elderly Handicapped People:

This section includes those members of the aged group who are not permanently housebound but are frail or suffering from some disablement which renders them unfit to carry out all domestic duties. Help was given a few hours weekly but allocations were frequently inadequate. The winter months intensified the needs of these old people and many of them suffered illnesses during bad weather. Lack of help and irregularity of service caused distress and such people need two half days a week.

Elderly people who are not handicapped:

Help was not always available for this group who merely require assistance with heavier household tasks. They are able to attend to meals and shopping and manage their own affairs. Climbing and bending tasks become irksome and are often dangerous to old people, and help is required to maintain domestic standards. Regular help would often prevent conditions deteriorating. One half day a week is the required minimum.

Family Help Cases:

Many cases of temporary need were served. Children were cared for whilst mothers were in hospital or ill and fathers enabled to continue in employment. Maternity cases were given a fortnight's help and it was pleasing to receive many expressions of gratitude from mothers. Several widowers requested help for the care of young children and help was given in the afternoons so that children arrived home from school to find a meal prepared and a motherly home help looking after the home. In all cases involving children and blind persons every endeavour was made to keep the same home help on the case.

Cases for whom help was provided during the last four years:

	1955	1956	1957	**1958**
Maternity	41	49	43	**42**
Tuberculosis	8	10	7	**10**
Chronic Sick	803	859	973	**951**
Other cases	136	122	98	**102**
Totals ..	988	1,040	1,121	**1,105**

Staff:

The administrative staff was increased by an additional case worker which enabled visits to patients to be made more regularly. Closer staff supervision became possible and field work increased generally. More frequent visiting seldom resulted in cases being finished, but served to emphasise the number of cases receiving inadequate service.

The home helps recruited during the year were women who are sympathetic to the problems of sickness and old age. The reduced availability of employment in other spheres was apparent from the number of women seeking employment. The Organiser was able to find private help for many cases and householders were very grateful for introductions to suitable women. Obtaining domestic help is comparatively simple, but it is not always easy to find a woman willing to care for very sick or difficult patients. The training course for home helps continued to be held at the Bolton Women's College of Arts and Crafts and the syllabus included lectures from members of the Public Health staff. Meetings and film shows were held in the Library Theatre and talks given on safety in the home. Home helps were able to persuade some old people to obtain fireguards during the National "Guard that Fire" Campaign. The staff

worked loyally and well during the year and greatly contributed to the mental and physical well-being of their patients. Helps do not merely clean houses; they perform all the duties of a devoted daughter and help and comfort the sick and elderly in many ways.

HOME HELPS EMPLOYED AT 31st DECEMBER:

Total number employed	161
Equivalent number of full-time	98
Average number of hours per week...	4,310
Average number of hours per case per week ...	6

There were some changes in the administrative staff and the newly appointed officers made the greatest efforts to assist the Organiser. The clerical officers of the department were most helpful during periods of change-over and the Organiser was very grateful for extra clerical assistance.

The administrative staff now consists of:—

Organiser
Assistant Organiser
Two Case Workers

Payment for Service:

The full cost charged to patients remained at 3/-d per hour and the scale of allowances continued to be allied to the National Assistance Board Determination of Needs Regulations. The vast majority of cases were Old Age Pensioners in receipt of National Assistance grants.

Summary of Payment for Service

	Free	Part Cost	Standard Charge
Maternity	4	24	14
Tuberculosis	9	–	1
Chronic Sick	859	38	54
Other Cases	63	7	32
TOTALS	935	69	101

Night Attendant Service:

Patients who were seriously ill or awaiting admission to hospital were granted night sitting service. In some cases help was given to relieve relatives who were sitting up with sick persons. In a few cases it was found that home help service during the day enabled members of the family to rest and they continued to care for the patient during the night. Three attendants gave excellent service and their help was greatly appreciated. In all, 41 cases received 175 nights of service.

Distribution of New Cases:

	Tuberculosis	Chronic Sick	Other Cases	Maternity
January	1	42	11	1
February	–	42	11	2
March	–	28	6	4
April	1	45	10	7
May	–	39	15	3
June	1	27	3	2
July	–	24	5	1
August	–	27	1	3
September	–	22	3	5
October	–	39	1	2
November	2	38	2	5
December	–	28	–	4
TOTALS	5	401	68	39

Future Development:

The figures of cases served show how the case load grew during the year and proves the urgency and need for expansion. Every week some cases were left without help. The lowest number was 60 and the highest 130. Bearing in mind that 86 per cent of the cases were persons over 70 years of age it is obvious that many old people suffered distress and disappointment when the expected help failed to appear. Every endeavour was made to see that cases were not left for too long at a time, but this was only possible by reducing the time spent on preventive case working. Home helps were moved from cases to serve those of more pressing need and they frequently found serious deterioration on returning to homes after an absence of even two weeks. Much constructive and preventive work remains to be done in the case of the aged and if it was always possible to give assistance at the first sign of failing powers the patient's health and happiness would be maintained. Isolated old people who are suffering material, physical or spiritual distress are an inarticulate section of the community, but we have to remember that they are all individuals with varying degrees of need and we should endeavour to make it possible for all of them to spend their last years of life in dignity, cleanliness and comfort. The service is performing valuable work with the available resources, but level of care is often below the minimum required.

Many people are inclined to imagine that a distressed old person is being neglected by relatives, but there is little real evidence in this direction. People over 80 years of age frequently have sons and daughters of 60 years, and where children are younger they usually have families of their own. The tradition of the town is for married women to continue in employment and most married daughters go out to work. Families are scattered and many old people have no relatives regularly available. Neighbours, friends and relatives can often continue to give some help and this would frequently continue over a much longer period if it could be supplemented by home help service. An industrial County Borough with a great many sub-standard homes cannot be fairly compared with more prosperous and cleaner areas. Old people living in houses with no modern conveniences are very likely to deteriorate and to abandon proper standards of personal care when water must be heated on stoves or fires and when visits to outside toilets become difficult. Provision of the services of a kindly home help who will help in these matters and see that varied meals are prepared can give inestimable comfort to an apathetic old person.

The Home Help Service has now reached a stage when its purpose is being endangered and its extension into the realms of constructive social work prevented by lack of revenue. Increases in the case load have not been balanced by a commensurate increase in staff and it is hoped that the position will be made easier in the next financial year.

MENTAL HEALTH

The announcement in the Queen's Speech, after the summer recess, of the intention of the Government to promote new mental health legislation, coupled with the introduction earlier in the year of informal admission of patients to mental deficiency hospitals, heralds a speedy implementation of most of the recommendations of the Royal Commission on Mental Illness and Mental Deficiency with expansion of community care services. The Council's policy in providing the facilities to meet these new demands was encouraged by Ministry approval towards the end of the year for a start to be made on the proposed Adult Training Centre, and for its completion by the end of 1959.

A small group of adults, both male and female, has now been established in the existing premises and the worsening employment situation in the town has emphasised the need for this service.

Further progress was made in the casework section, the staff of social workers being brought up to establishment but this work was hampered by lack of hostel facilities and hospital beds, and representation was made to the Management Committee of the Bolton District General Hospital and the Regional Hospital Board on the dangerous inadequacy of psychiatric accommodation.

Staff:

During the year the vacancy on the establishment for a mental welfare officer was advertised and in the absence of an experienced applicant an officer with previous experience in another sphere of social work was appointed for training. On 31st December, 1958, therefore, the staff comprised:—

1 Senior Mental Health Officer (Duly Authorised)
3 Mental Welfare Officers (Duly Authorised)
1 Trainee Mental Welfare Officer

Comprehensive mental health social work was carried out by all officers and none of the functions of the Local Health Authority was delegated to voluntary associations.

Training:

The continued absence of any recognised training or qualification for the duties of a mental welfare officer is deplorable, but with the completion during the year by a further officer of the refresher course organised by the National Association for Mental Health, all officers except the trainee are now competent by virtue of experience and refresher courses.

An assistant supervisor at the Occupation Centre successfully completed the Diploma Course of Teachers of the Mentally Handicapped and was appointed Supervisor and facilities continued to be made available for both social workers and teachers to attend lectures and conferences to enable them to keep up to date with new treatments and experiments in care and training.

Practical instruction was given to student health visitors and the Consultant Psychiatrist, Dr. J. T. Leyberg, commenced a series of lectures to the health visitors and district nurses on the various groups of mental illness.

Probably as a result of the publicity given to mental health by press, radio and television, the demand for talks to local groups by the Senior Mental Health Officer increased.

Liaison:

The liaison with the Consultant Psychiatrist at Townleys Hospital remained excellent.

The Senior Mental Health Officer attended quarterly meetings with the Medical Superintendent of Prestwich Hospital and representatives from other local authorities served by that hospital, but these meetings were mainly a periodic review of patients on the waiting list of the Bed Bureau and are not very productive.

If representations are successful, and Townleys Hospital could be expanded to receive all patients from Bolton, liaison is so well developed that a completely integrated mental health service would result.

Mental Illness

Hospital Admissions:

Total number of patients admitted to Mental Hospitals
(including direct admissions from out-patient clinics)

Method of Admission	Under 65 years		65 years and over		Total
	Male	Female	Male	Female	
Voluntary	78	60	10	10	158
Lunacy Act—					
Section 20	16	30	7	14	67
Section 21	2	7	3	5	17
Section 16	8	12	1	1	22
Other Sections	–	–	–	–	–
Totals	104	109	21	30	264

Of 84 patients admitted under short orders (Secs. 20 and 21) it was necessary to proceed to certification in 7 cases, giving a total of 29 patients certified during the year (11% of all admissions).

There was a slight reduction in the number of patients admitted to hospital but this does not represent a lessening in the demand, but is governed by the number of beds available. The percentage of chronic patients distributed

among the large mental hospitals is diminishing through deaths and discharges, and as those beds are no longer available for Bolton cases there is a gradual increase in the number of chronic patients in Townleys hospital resulting in resistance from that hospital to admit such cases, and by the end of the year it was virtually impossible to secure the admission of senile and chronic patients. It is clear that more beds for such cases are urgently required.

The annual admission rate is now down to 1.6 patients per 1,000 population, compared with an overall rate of 3 per 1,000 for London and provincial cities, but in spite of the development in the community care services, this rate is below the safety limits and risks are being taken, particularly with elderly, confused and disorientated patients living alone.

Townleys hospital received 82% of all admissions and the Day Hospital assisted in the care of many more. The main problem in caring for patients, however, is night care and the strain soon proves too burdensome for relatives and neighbours. Suitable hostels to relieve the hospital of some of its chronic patients are urgently required and it is hoped that the new legislation will enable this aspect to be tackled quickly.

Cases reported to Health Department for investigation:

	Under 65 years		Over 65 years		Total
	Male	Female	Male	Female	
REPORTED BY—					
Medical Practitioners	22	31	21	33	107
Relatives	14	21	–	8	43
Police	12	13	1	2	28
Consultants and Hospitals	9	19	6	4	38
Others	12	17	5	11	45
TOTALS	69	101	33	58	261
DISPOSAL—					
ADMITTED TO HOSPITAL——					
As voluntary patients	21	12	6	–	39
Under Section 16 Lunacy Act	8	11	1	–	20
Under Section 20 Lunacy Act	16	30	7	14	67
Under Section 21 Lunacy Act	2	7	3	3	15
Other forms of admission	–	–	–	–	–
Awaiting admission	–	2	–	5	7
TOTALS	47	62	17	22	148
Referred for Psychiatric advice	8	11	2	5	26
Placed under Community Care	4	19	4	14	41
Died	–	–	1	4	5
No further action required by Mental Health Service	10	9	9	13	41
TOTALS	69	101	33	58	261

Community Case Work:

The number of cases referred for investigation and the number in need of hospital admission remained fairly constant. The reduction in the number referred for psychiatric advice is no doubt accounted for to some extent by the reduction in the number of patients under 65 years reported by general practitioners, who are undoubtedly making more use of direct reference to the Consultant Psychiatrist both by use of the clinics and by domiciliary consultation, in the hope that speedier admission will be achieved.

There was a further increase in the demand for help by community care and in the after-care service. Great difficulty was again experienced in finding suitable accommodation for patients discharged from hospital and the unemployment situation also had its impact.

An innovation was the regular attendance of one of the mental welfare officers at the Psychiatric Clinic at the Bolton Royal Infirmary, thus extending the social work service to a new class of patient.

On 31st December, 1958, there were 67 patients (24 male, 43 female) receiving regular after-care and the total number of visits made was:—

	1956	1957	**1958**
To investigate cases reported ...	520	587	**569**
To complete social histories ...	26	16	**25**
Community care visits	200	531	**688**

Psychiatric Social Club:

The club continued to function satisfactorily throughout the year with an average attendance of approximately 40 members. The Committee, under the chairmanship of the Senior Mental Health Officer, arranged the now recognised programme of speakers, discussions and social events, and the Consultant Psychiatrist and the Mental Welfare Officers actively assisted in the running of the club and maintaining its function as a centre of friendly contact.

It became apparent during the year that the club was reaching a transitional stage as many of the early members had satisfactorily rehabilitated and taken up their own sphere of social activity, leaving those who had retained interest to the extent of serving on the Committee and a group who will always need this club as a source of relief from their social isolation. The Consultant Psychiatrist has therefore arranged to build up the group in need of rehabilitation by introducing more patients from the Psychiatric Clinic to the therapeutic value of club membership.

Mental Deficiency

Supervision:

The routine ascertainment and supervision of mental defectives, though perhaps less conspicuous than work with the mentally ill is nevertheless of equal importance and requests for help and advice increased during the year. Several defectives who have worked satisfactorily for some years found themselves unemployed due to the closing down of works and then competing unsuccessfully with normal people for the few jobs available. Provision was made for one such woman to attend the Occupation Centre thus relieving a difficult situation at home. The deterioration in habits and behaviour of

others emphasised the urgent need for the new building to provide occupation and the normal routine of a working day until such time as industry can re-absorb them. The situation was even more critical for those who were living in lodgings—their difficulty in managing when reduced from a regular wage to unemployment benefit and the poor standard of lodgings available to them for the price they could afford proved how ineffectual the service can be without suitable hostel accommodation.

Two children were reported by their parents while still under school age and were ascertained in order to permit practical help. In one instance, regular visiting and advice enabled the parents to cope better with their own emotional problems and in another, provision of short-term care in hospital was provided.

All cases under supervision who were not in employment or attending the Occupation Centre received at least one visit during the year by a medical officer. Further advice and treatment was arranged where necessary and the co-operation of Dr. D. J. Rose, Medical Superintendent of Brockhall Hospital, in seeing several problem cases at his clinic was greatly appreciated.

The friendly relationship with officers and members of the Bolton Society for Mentally Handicapped Children continues to flourish. Most of the activities arranged by the Society are now made available to children attending the Occupation Centre irrespective of whether their parents are members of the Society, and the readiness with which the Society responded to two requests for financial assistance for adult defectives when help could not be secured from any other source was very gratifying. In this and many other ways the Society is making a valuable contribution to the service for the mentally handicapped.

The marked increase in reports on the home circumstances of patients requested by hospital was mainly due to the extra visits made to ascertain the views of relatives and explain the procedure of transferring many patients from a detention order to stay on an informal basis. Close liaison was maintained with the social worker of Brockhall Hospital in the supervision of patients on licence.

Visits carried out for the purposes of the Mental Deficiency Acts were:—

	1957	**1958**
To defectives under community care ...	612	**658**
To homes at the request of hospitals ...	191	**252**

Three medical officers are approved by the Authority for the purposes of Sections 3 and 5 of the Mental Deficiency Act, 1913:—

The Medical Officer of Health

The Deputy Medical Officer of Health

The Consultant Psychiatrist, Bolton and District Hospital Management Committee

Mental Deficiency Acts 1913-1938

New Cases Reported by—	Male	Female	Total
Local Education Authority			
Section 57(3) Education Act, 1944	5	1	6
Section 57(5) Education Act, 1944	4	7	11
Relatives	1	2	3
Other sources	1	1	2
Totals	11	11	22

Disposal of above cases—			
Placed under Statutory Supervision	11	10	21
Placed under Voluntary Supervision	–	–	–
Not ascertainable	–	1	1
Totals	11	11	22

Cases previously ascertained who became the subject of an Order during the year—			
Admitted to Hospital—Section 8	1	2	3
Admitted to Hospital—Section 6	–	1	1
Admitted to Hospital—Informal basis	2	5	7
Total cases dealt with ...	14	19	33

The following table shows the total number of ascertained defectives with details of the care they were receiving at the 31st December, 1958:—

	Male	Female	Total
In Hospitals	100	103	203
In 'Place of Safety'	–	–	–
Under Statutory Supervision	87	95	182
Under Voluntary Supervision	14	6	20
Totals	201	204	405

Institutional Accommodation:

Classification of mental defectives awaiting vacancies in institutions at the end of the year

	Under 16 years		Over 16 years		Total
	Male	Female	Male	Female	
IN URGENT NEED:					
Cot and chair cases	–	–	1	1	2
Ambulant low grade	–	1	1	2	4
Medium grade	1	–	–	–	1
NOT IN URGENT NEED:					
Cot and chair cases	3	1	–	–	4
Ambulant low grade	–	–	1	–	1
Medium grade	–	1	–	–	1
High grade	–	1	–	–	1
TOTALS	4	4	3	3	14

There was some improvement in the availability of mental deficiency hospital beds and 11 patients were admitted during the year. Of these, 3 were admitted following appearances in Court, and 3 were emergencies on the death of relatives. At the 31st December, 1958, the number of patients on the waiting list was 14 compared with 18 at the end of December, 1957.

Of the patients admitted from the waiting list, only 2 were from the urgent low grade group and with 2 more patients added to this group, there were still seven patients living under conditions which were imposing a severe strain on relatives and neighbours. Seven out of the 11 patients who were admitted were under the new informal procedure. During the year, 79 were discharged from their detention orders and remained in hospital on an informal basis. Only one patient took advantage of this action and left the shelter of the hospital service.

It is considered that 5 of the patients admitted, including the 3 who appeared before the Court, could have been dealt with by Guardianship in a suitably staffed Local Authority Hostel, and 3 of them could have continued in employment.

Short-term Care:

Eleven applications for short-term care were received during the year and in only one instance was it impossible to assist. Nine patients were accommodated in Mental Deficiency Hospitals for periods varying from two weeks to two months and one man was cared for in accommodation provided under Part III of the National Assistance Act while his parents had a holiday. The provision of accommodation for short periods is invaluable for providing relief to relatives, but the fact that arrangements cannot be made for precise dates prevents relatives fixing holiday accommodation so that they can have a complete break, and it is regrettable that over the last few years it has proved impossible to arrange for any short-term care to cover the local holiday week.

Occupation and Training Centre:

The Supervisor of the Centre resigned during the year and the post was left vacant until an assistant supervisor, Miss E. Dobbin, completed the Diploma course of the National Association for Mental Health. Miss Dobbin was subsequently appointed Supervisor and the resulting vacancy for an assistant was filled by a fellow student who had completed the same course thus giving the Centre two qualified teachers for the first time.

The staffing position on the 31st December was:—

1 Supervisor (qualified)
3 Female Assistant Supervisors
1 Male Assistant Supervisor
1 Part-time Guide Assistant
1 Part-time Cook
2 Part-time Domestics

The employment of qualified staff resulted in an improvement in the standard of training of the children. The Centre continued to operate from Monday to Friday each week with primary school holidays, and at the end of the year there were 40 persons (20 male and 20 female) on the register with an average daily attendance of 31. There was no improvement during the year in the early ascertainment of ineducable children and the nursery class at the Centre is consequently a very small group.

Training in the three main groups at the Centre, (i.e. Nursery, Junior and Intermediate), was based mainly on the established pattern of project work, hygiene and social training, speech therapy and eurythmics. All trainees have their mid-day meal at the Centre as part of their social training. A nominal charge was made for the meal, but free meals were granted in cases of hardship.

Social events included a day out at Southport, and a visit to the pantomime as guests of the Bolton Society for Mentally Handicapped Children. The children were also taken out in groups for walks from the Centre. The Harvest Festival Service was conducted by the mother of one of the children and the parents gave excellent support to the service both in gifts and in attendance.

Regular medical and dental inspections were carried out on all trainees and necessary treatment arranged either through the clinics of the School Health Service or the family practitioner. A member of the staff of the Municipal Medical Baths attended each Monday morning and carried out bathing and hair washing where necessary.

The adult male unit under Mr. Haslam is now well established with seven boys over the age of sixteen years and two under this age who spend part of their time from the Junior Centre in the workshop. Basket work, brush making and the making and seating of stools produced articles for which there is a steady demand, and mat making, chopping firewood and simple carpentry work was also carried out. This group carried out simple maintenance work on the premises. Their work on the gardens and lawns and on the outside of the buildings with paint and cement compounds has considerably improved the appearance of the premises.

There are now seven girls over the age of sixteen years in regular attendance and in addition to needlework and other handicrafts, they were trained to help with the children in the nursery class, and with the domestic work in the Centre.

Boys and girls in the two adult groups received small payments as an incentive to regular attendance and as a reward for the work they performed.

Arrangements have been made for approximately 30 of the trainees to go with the staff for a week's holiday at Abergele in May, 1959.

Future Development

The completion of the Adult Training and Occupation Centre by the 31st December, 1959, will end the first phase of the redevelopment of the facilities on this site and will provide not only training for mentally handicapped persons with a view to their absorption into industry, but premises where sheltered workshop conditions can be developed for those who will never be able to work in industry. A small unit will also provide for persons who though not trainable can be adequately cared for at home if day care is available.

It is now quite clear that the new mental health legislation will call for the expansion of local authority services to provide sheltered workshop and hostel facilities for all types of mental disorder. The need for these services has long been appreciated by the Local Authority and the legislation is welcome, but the speed of provision must depend a great deal on financial provision and the amount of assistance, if any, forthcoming from the Treasury.

In any staging of the provision of services it is considered that hostels are the more urgent as they would not only provide facilities for more discharges from hospital, but would enable selected persons to remain within the community and avoid the necessity for admission to hospital. Two types of hostel are envisaged, one for the younger group who can continue to go out to work or to the Adult Centre, and one for the elderly who, though unable to manage at home, need more care and supervision than is available in the hostels at present provided by the Welfare Committee.

Serious consideration must now be given by the Council to steps which will have to be taken to provide these hostels.

REVIEW OF THE FIRST TEN YEARS OF THE NATIONAL HEALTH SERVICE

The Minister of Health has asked Medical Officers of Health to include in their reports a brief general review of the manner in which the Local Health Services have functioned in the wider setting of the National Health Service generally during the first ten years.

GENERAL

Administration:

In Bolton, the powers and duties of the Council under the National Health Service Act are exercised by the Health Committee which has appointed two Sub-Committees to be responsible for the appropriate Local Health Services. The Personal Services Sub-Committee deals with all matters relating to the Care of Mothers and Young Children (including Nurseries), Health Visiting, Vaccination and Immunisation Services, District Midwives, District Nursing Services, Home Help, After-Care and Mental Health Services. Another Sub-Committee is responsible for the Ambulance Service.

All the Local Health Authority's services are administered from the Health Department in the Civic Centre.

Co-ordination and Co-operation with other parts of the National Health Service:

Although the tripartite arrangement of Regional Hospital Board, Executive Council and Local Health Authority under the National Health Service Act has been criticised the arrangement has functioned reasonably well in Bolton mainly because of the good personal relationship existing between those responsible for working the services locally and also, to some extent, because of representatives of one part of the service serving on the committees of the other two. Thus the local medical, pharmaceutical and dental services each nominate a representative for co-option on the Health Committee. Seven members of the Health Committee and the Medical Officer of Health are members of the Local Executive Council. The Medical Officer of Health is a member of the Hospital Management Committee, its Medical Advisory Committee, the Local Medical Committee, and the Liaison Committee between local medical officers of health and the Regional Hospital Board.

As mentioned in the general report of the Medical Officer of Health, a most useful series of meetings took place during 1956, 1957 and 1958 between representatives of the three branches of the service to discuss ante-natal care.

The tripartite structure has recently received some support in the Report of the Maternity Services Committee which has stated that it would not be practicable to transfer the maternity services alone to hospital control when all other health services remain under the tripartite structure. The Guillebaud Committee reporting in 1956 also considered that no major change was necessary in the general administrative structure of the National Health Service and reached the conclusion that the Service's record of performance since the 'appointed day' has been one of real achievement.

The Senior Chest Physician, a proportion of whose salary is paid by the Local Health Authority, occupies a clinic inside the Health Department building. He is assisted, particularly with regard to tuberculosis after-care, by three health visitors who are seconded for duties in the clinic and in the patients' homes. He has also at his disposal the stock of home nursing equipment which is kept in the same building.

There is equally close co-operation in ante-natal work. Ante-natal clinics are held in the Civic Centre and are staffed by the Local Health Authority's doctors and midwives. Complicated cases may, however, be referred to the Consultant Obstetrician who is on the staff of the Regional Hospital Board.

In the field of geriatrics, a health visitor visits weekly with the geriatrician to assess the priority of urgency of admission to hospital of old folk.

Similarly there is good liaison between local doctors and our health visitors in securing proper after-care of convalescent patients. Co-operation between district nurses and midwives on the one hand, and general practitioners on the other hand, is also particularly good.

A Weekly Information Sheet consisting of details of epidemiological information, medical rota duties and general information, is sent to all doctors on the Executive Council list and to the Group Secretary of the Hospital Management Committee for distribution. The Information Sheet is prepared in the Health Department and dispatched by the Executive Council.

An excellent example of the very great co-operation of the Executive Council and the Hospital Management Committee and their officials has been in the production of a Health Exhibition in 1954 and the preparation of the Bolton Health Services Handbook which is re-issued as necessary.

The Hospital Management Committee has assisted greatly in cleansing the linen of the Corporation's laundry service for incontinent patients.

Co-operation with Voluntary Agencies:

The Bolton Mother and Child Welfare Association which had provided clinics wound up in 1950, the work being undertaken by the Health Committee. Since then voluntary workers have helped greatly in the child welfare clinics. The Local Health Authority pays an annual grant to the Bolton Moral Welfare Association whose officer acts as the Authority's agent in assisting unmarried mothers. Effective liaison is also maintained with the Bolton Guild of Help. The Women's Voluntary Service has assisted with the re-clothing of many of our problem families.

Joint Use of Staff:

Until April, 1952, general practitioners staffed the child welfare clinics. Since that time, however, an adequate full-time staff has been recruited and general practitioners now attend the clinics only during absence of the full-time staff. The Consultant Paediatrician holds regular clinical meetings at Bolton District General Hospital attended by the medical staff and the medical officers in turn have acted as clinical assistants to the Consultant Paediatrician in hospital one session a week for six months at a time.

The Chest Clinic is medically staffed full-time by officers of the Board.

It is interesting to note that the Regional Hospital Board's Diagnostic Clinic is also held within the confines of the Health Department building.

PARTICULAR SERVICES

Care of Expectant and Nursing Mothers and Children under School Age:

Expectant and Nursing Mothers:

Ante-natal clinics were discontinued in March 1950 due to the small number of attendances, and patients were seen by midwives in their own homes. The clinics were recommenced in September 1952. From that date until last year, two weekly ante-natal clinics have been held in the Health Department. In 1959 it was planned to start a third. The clinics are staffed by an assistant medical officer, a health visitor, and a midwife. Attendances have not fallen off in recent years. Post-natal examinations are carried out by appointment.

At the ante-natal clinics, specimens of blood are taken for Kahn reaction, Rhesus Factor, and Haemoglobin examination.

Mothercraft and Relaxation Training are given in conjunction with the ante-natal clinics.

Child Welfare Centres:

The work of the centres which are staffed by assistant medical officers has increased in recent years, the number of weekly sessions being now 15 compared with 12 in 1948.

Care of Premature Infants:

Most premature babies born at home are immediately transferred to hospital in a special oxygen supplied outfit. Special equipment is also provided by the department for the domiciliary care of premature babies.

Dental Care:

The part played by the Priority Dental Services in Bolton during the ten years since the inception of the National Health Service in 1948 has been handicapped throughout by the grave shortage of dental manpower, and has been subject to difficulties arising from staff changes and losses due to resignations.

During the period 1948 to 1952, staff shortages caused a suspension of dental work for Maternity and Child Welfare cases. In August 1953, with the help of part-time service, one session a week was devoted to this work and all patients attending ante-natal clinics were given appointments for dental inspection, and full treatment including the provision of dentures was given to those patients accepting offers of treatment at the clinic.

Medical officers and health visitors referred pre-school and nursery children for treatment as necessary.

In 1954 as a part-time dental officer resigned and no other general practitioners were willing to undertake this work, the Education Committee agreed that two full-time dental officers should devote one session each week to this work which continued on this basis until April 1957 when losses of staff again necessitated a severe curtailment of dental facilities for these classes which are now treated on an emergency basis only in conjunction with regular school dental sessions.

Unfortunately, the majority of patients treated by the Local Authority Service have mouths which suffer from long neglect making necessary treatment of a very radical nature and exacting operating sessions. This may well account for the lack of professional staff willing to work in this field especially as the remuneration compares very unfavourably with the emoluments of private practice.

Day Nurseries:

In 1952 there was accommodation for 351 children in the seven nurseries controlled by the Local Health Authority. Of this number, 15 children were resident at Park House Nursery at the request of the Children's Committee to assist in the carrying out of duties under Section 13 (vi) of the Children Act until February 1955. The children were then transferred to the Children's Committee's new nursery on Chorley New Road.

Closure of Day Nurseries:

Cotton Street Nursery ceased to function as a Day Nursery in September, 1952, in order to adapt the premises as an Occupation Centre for mental defectives.

Arkwright Street Nursery closed in January, 1956, and Newport Street Nursery in January, 1958.

The closure of these premises reduced the number of places available to 197.

Domiciliary Midwifery:

The 1948 Annual Report of Bolton shows the number of domiciliary births as 1,026—35.3 per cent of the total notified births, and successive reports show a decline in numbers to between 400 and 500 births—fewer than 20 per cent of notified births.

In 1956, 1957 and 1958, following the publication of the Memorandum on ante-natal care embodying advice from the Standing Maternity and Midwifery Advisory Committee of the Central Health Services Council, meetings took place between professional representatives from the staff of the Bolton Hospitals, General Practitioners, the Medical Officer of Health, No. 11 Division, Lancashire County Council, and the Medical Officer of Health of Bolton County Borough Council. A summary of the conclusions of their report is given in the general report of the Medical Officer of Health.

Municipal midwives on the staff have decreased from 14 to 8 during the past ten years.

After the midwives' home was closed in August, 1954, all women desiring to book a domiciliary midwife were invited to attend ante-natal clinics held at the Civic Centre. The majority continued to attend, but some who had booked a doctor received ante-natal care from him.

All mothers who should be confined in hospital on either social or medical grounds can always be admitted. At the request of the hospital, health visitors report on the home conditions of expectant mothers regarding their suitability for home confinement.

The office in the Health Department is used as a centre of contact and midwives leave messages as to their whereabouts when on their nursing rounds. The patients are informed about this and telephone in if they cannot contact their booked midwife at her own home.

Health Visiting:

The health visitor staff has increased from one Superintendent Health Visitor, and 22 Health Visitor/School Nurses in 1948 to—

Superintendent Nursing Officer
Deputy Superintendent Health Visitor/School Nurse
Centre Superintendent
1 Health Visitor engaged solely on problem families
25 Health Visitor/School Nurses
3 Tuberculosis Health Visitors
3 School Nurses
1 Clinic Nurse

TOTAL: 33 plus 3 administrative staff, one of whom gives half of her time to administrative work

This increase in staff became necessary when the scope of the health visitor's work was widened under the National Health Service Act.

Since 1948 the health visitors in turn attend weekly at the hospital both at the paediatric out-patients' clinic and the ward round. Since 1956 one health visitor has attended weekly a general practitioner's surgery to discuss the social aspects of his patients. Since 1954 two health visitors have accompanied the Geriatric Consultant on his domiciliary visits. Visits are also paid in connection with care and after-care, rehousing and social enquiries. The health visitors from time to time also visit in connection with various types of research. An increasing amount of time is spent by the health visitors in the practical training of students, including student health visitors and hospital nurses.

Selective visiting has taken the place of routine visits to all children under the age of five years.

Since 1951 bursaries have been provided by the Local Authority for suitable candidates who wish to train for the Health Visitor's Certificate. An average of five students qualify each year. Students contract to serve the Local Authority for a period of two years after qualification. The Health Visitor Training Centre is organised by the Queen's Institute of District Nursing at Bolton Technical College.

All health visitors attend refresher courses every five years and a programme of 'In Service' training is arranged for health visitors each year.

PREVENTION OF BREAK-UP OF PROBLEM FAMILIES:

The prevention and detection of problem families forms an important part of the health visitor's work. Following the publication of Ministry of Health Circular No. 27/54, one health visitor was seconded to work full-time with problem families. Intensive visiting has prevented the break-up of families in many cases.

Since 1955 the specialist health visitor has dealt with 142 families. The value of her work is demonstrated by the fact that 61 cases have been returned to the general health visitors as being no longer in need of special supervision.

The Local Authority makes use of the facilities of the Brentwood Recuperative Centre for the rehabilitation of families with social difficulties. In 1954 five families were admitted for a varying period of time. It was not found necessary to make use of the Brentwood Centre during 1958. This indicates the valuable work being undertaken by the specialist health visitor.

Home Nursing:

The Home Nursing Service was administered from the District Nurses' Home, Chorley New Road, Bolton, from 1945 to 1954 and then transferred to the Health Department, Civic Centre, Bolton, where premises were adapted and equipped with sterilization facilities, stores, etc. A direct telephone line ensures that family doctors can contact a nurse at any time. The usual hours are from 8.30 a.m. to 6.30 p.m. and an extension to the Ambulance Station enables messages to be received and contact made with a nurse when necessary.

The increased number of cases nursed has shown that the service has proved useful in assisting the doctors and has reduced the pressure on hospital beds.

Liaison with hospitals is good and district nurses continue the work of rehabilitation of patients discharged to their homes.

Late evening visits are paid chiefly to give sedatives by injection, but the nurse on duty has rarely been called out during the night.

The establishment of 30 nurses had been reached in 1958. The decision to allow a proportion of the staff to use cars has had a good effect on recruitment and lessened the amount of absence through sickness.

Most nurses have received district nursing training and all nurses now appointed will first undergo this training.

The following table shows the growth in the work since 1948:—

	1949	**1959**
Number of cases attended during the year ...	2,628	**3,815**
Total number of visits	85,314	**113,349**

Vaccination and Immunisation:

The various immunisations are carried out in accordance with the following time-table. All are done at ordinary child welfare sessions with the exception of poliomyelitis vaccination, for which special sessions have been arranged.

Vaccination against smallpox—preferably at the age of three months;

Primary immunisation (against whooping cough, diphtheria and tetanus)—at the age of four months, completing the course at six months;

Booster immunisation—at the age of five or six years;

Poliomyelitis vaccination—over the age of six months.

Constant propaganda is carried out by the health visitors at the child welfare centres and when making domiciliary visits.

The Clerk of the Executive Council circulates a personal letter from the Medical Officer of Health to all parents of children receiving their first medical card. The letter tells parents of the advantages of having their children vaccinated and immunised at an early age, and they are invited to get in touch with their nearest child welfare centre or family doctor in order to obtain this service.

VACCINATION AGAINST SMALLPOX:

Vaccination against smallpox ceased to be compulsory in 1948 when the National Health Service Act became operative. The Local Authority and general practitioners took over the work of the public vaccinators and arrangements were made for children to be vaccinated at the child welfare centres. It is pleasing to record that the percentage of infants under one year who have received vaccination has risen from 14% in 1949 to 50% in 1958.

VACCINATION AGAINST POLIOMYELITIS:

Following discussions with the Local Medical Committee it was decided that the Local Health Authority staff should be responsible for the entire poliomyelitis vaccination campaign in the town. The scheme, which began in 1956, continues to progress. Day and evening sessions are held in the Department and special visits have been made to industrial premises, schools, etc. 4,076 persons had completed the course of three injections by the end of 1958, and 62.7% of the under-fifteens had had two injections.

IMMUNISATION AGAINST DIPHTHERIA, WHOOPING COUGH AND TETANUS:

Immunisation is available at all the child welfare centres. Booster injections are given at school. During 1952 a combined diphtheria/pertussis vaccine was introduced and parents were given the choice of diphtheria and whooping cough vaccine or diphtheria only. In November, 1957 the Ministry agreed to a modification in the Corporation's proposals to allow the use of a triple antigen containing antigens against diphtheria, whooping cough and tetanus. A substantial number of children in Bolton have now been immunised against tetanus and arrangements have been made for general practitioners and hospital staff to telephone the Health Department to find out the tetanus immunisation state of casualties if they are in doubt.

It is estimated that 75% of Bolton children under fifteen years of age have been completely immunised against diphtheria.

Ambulance Service:

The Ambulance Service provides transport for patients in an area of 51 square miles consisting of the County Borough of Bolton and the adjacent district of Lancashire County Council administered by the Turton Urban District Council. This latter service is carried out at the request of Lancashire County Council on an agency basis. There is a 'knock-for-knock' agreement with the County Council for areas other than the Turton area.

Radio was installed in all vehicles during 1953.

Since 1949 the total mileage figure has increased by only 53%, although the number of patients carried is more than 106% greater. Although there have been fluctuations, the mileage for each year since 1955 has been almost the same, with a slight increase last year. There was a sharp increase in the total number of patients carried during 1954, largely the result of additional hospital out-patient clinics and the acceptance by the Authority of the responsibility for a great part of the inter-hospital transport of patients. The mileage per patient has reduced from 4.37 miles to 3.25 miles, much of this reduction being attributed to the radio control of the ambulance vehicles.

The secondment of an ambulance officer as a liaison officer to the Out-Patient Department of the Bolton Royal Infirmary during 1957 has resulted in closer liaison with the hospital. Originally it was visualised that he would be responsible for the turn-round of out-patients but now he handles all ambulance transport requests from the hospital departments. The benefits of effective co-operation in this field are considerable to the hospitals, ambulance authority and patient alike. The value of this liaison has now been fully recognised by the Lancashire County Council, who accept this officer as the responsible person for controlling the transport requests for County ambulances whilst they are at Bolton Royal Infirmary. Consequently, they have made a contribution to this officer's salary.

Good co-operation is received from hospital staff and general practitioners, and there is no evidence of abuse of the service.

There has been a radical change in the composition of the fleet which in 1949 consisted of 10 stretcher case ambulances and 2 sitting case cars. A sitting case ambulance was put into service during 1953, followed by a second one in 1954. The value of these vehicles was shown immediately, particularly during 1954 when the number of out-patient clinics at the hospitals was increased. By 1957 there were 6 stretcher case ambulances, 5 sitting case ambulances and 2 sitting case cars, and, having regard to the efficiency of the Service, this is considered to be the correct ratio.

The Ambulance Control Room, because it is manned twenty-four hours a day by a senior member of the staff, attracts many other duties, such as the reception and transmission of messages for home nurses after the Home Nursing Service headquarters have closed for the night; providing emergency transport of midwives and sometimes transmitting messages for them, and emergency transport of oxygen; the duties arising from the running of the Medical Bureau, and arranging, amongst other things, for the supply of Night Attendants when needed in emergency at night, or at weekends. Transport of the hospital 'flying squad' is also undertaken. The Control Room also acts as a second line of approach if the Duly Authorised Officers are not immediately available.

The Medical Bureau enables patients to contact a doctor, and doctors to arrange off duty and leave their homes and surgeries unattended. The patient is expected in every case to telephone his doctor before an approach to the Bureau is made. The procedure is as follows:—

The doctor contacts the Bureau and gives one of the following three messages—

1. The address or telephone number where he may be found.
2. The name, address and telephone number of the doctor acting as his deputy.
3. The time he will return.

Patients who cannot get their doctor telephone the Ambulance Depot.

The Bureau then gives the message left by the doctor.

The rota and holiday lists prepared by the Local Medical Committee are sent direct to the Ambulance Depot.

A booklet describing in detail the major accident organisation has been published by the local Hospital Management Committee. The organisation involves the hospitals, police, fire, ambulance and welfare services. The emergency scheme, as far as the Ambulance personnel were concerned, was tested during 1957 when there was a minor railway accident, and the operation proved satisfactory.

Prevention of Illness, Care and After-Care:

TUBERCULOSIS:

Dr. John Mitchell, the Consultant Chest Physician-in-Charge has supplied the following information.

In accordance with the Manchester Regional Hospital Board's policy which aimed at widening the scope of the old Tuberculosis Dispensaries, this clinic has developed substantially. Some of this development is reflected in the table:—

	1948	**1958***
Number of attendances of new cases... ...	890	**1,682**
Number of notified tuberculous cases ...	157	**89**
Number of tuberculosis deaths	70	**16**
Number of contacts examined	74	**866**
Number of B.C.G. vaccinations given ...	—	**129**

The clinic's main effort is absorbed in providing a consultative service in diseases of the chest for patients residing in Bolton, Horwich, Turton, Blackrod and Adlington, referred by their family doctors. It is also committed to assisting the Public Health Authorities discharge their duties in regard to the prevention and after-care of tuberculous patients.

The doctor in charge of the chest clinic is also in charge of general medical beds and out-patient clinics in the Group as well as the beds at Wilkinson Hospital. Thus the clinic is closely associated with other departments in the Bolton Hospitals Group so that special investigations, particularly in the departments of Pathology and Radiology, consultations with other specialists, bronchoscopies and admissions to other hospitals in the Group, are easily arranged. The clinic is also closely associated with the Mass Miniature Radiography Unit. The documentation and system of records parallels the system employed in the Group generally. A good clerical staff runs a satisfactory appointments system and provides an atmosphere of efficiency wherein doctors and nurses can work more effectively. They also do all the clerical work for the contact clinic.

*These figures are for patients from the County Borough of Bolton only.

Three tuberculosis health visitors work at the clinic and one or two are always in attendance at the clinic sessions. This gives them an introduction to new patients as well as a better understanding of the old, and the clinic has the benefit of their sympathetic assistance. These health visitors also attend the After-Care Committee which meets once a month to discuss and make recommendations on the after-care and needs of tuberculous patients. By assisting at the contact clinic they provide another link between clinic work and prevention of tuberculosis. In recent years this contact clinic has been run jointly by members of the clinic and public health department staffs with considerable success.

Admission to tuberculosis beds is now under local control and arranged through the chest clinic, the majority of Bolton patients going to Wilkinson Hospital, at which hospital they receive priority in regard to admission.

Illness Generally:

Arrangements are made for patients to go for convalescence, recommendations being received from general practitioners, our own staff, and occasionally from hospitals. A stock of articles of nursing equipment for use in the home is kept in the Health Department and they are loaned free of charge at the request of general practitioners, district nurses and hospital almoners.

Home Help:

Bolton is an industrial town with a long tradition of employment of married women and for twenty years prior to the inception of the National Health Service Act, 1946, there were women employed by the Council working as "daily helps." In 1948 when the Home Help Service was established, maternity cases made substantial demands. Extremely good nursing home and hospital accommodation is available for maternity cases but there is evidence that the National Insurance Act mitigates against mothers choosing to have their babies at home, as even with the Home Confinement Grant it is nevertheless cheaper for the mother to enter hospital than to pay for the service of a home help. The provision of home help service often seems a happier arrangement than a hospital confinement as other children are not deprived of the mother's presence and family life is not disrupted. The number of maternity cases served has considerably decreased during the past ten years. This may well be a matter for regret and it is interesting to note that the Cranbrook Report suggests an expansion of Home Help Services on similar lines to the Maternity Aid Scheme operating in Holland.

The following figures give some indication of the change in demand for help.

Case Loads

1948	...	...	697	cases,	including	265	maternity
1949	...	...	721	,,	,,	182	,,
1950	...	...	579	,,	,,	142	,,
1951	...	...	884	,,	,,	120	,,
1952	...	...	806	,,	,,	71	,,
1953	...	...	916	,,	,,	77	,,
1954	...	...	997	,,	,,	53	,,
1955	...	...	988	,,	,,	41	,,
1956	...	...	1,040	,,	,,	49	,,
1957	...	...	1,121	,,	,,	43	,,
1958	...	...	1,105	,,	,,	42	,,

Prior to 1948, many hospital beds were occupied by elderly, frail patients for whom specific medical treatment was not available. Their presence in hospitals and institutions was largely because of the absence of relatives to perform the simple tasks of providing meals, assisting in physical care and keeping homes clean. The care of these patients has become the province of the Home Help Service and when periods of hospital treatment become necessary the patient is assured of the continuance of home help care upon discharge. In 1954 a night sitting service for very sick patients was established.

Women requiring hospital treatment are frequently concerned at the prospect of leaving their families but the provision of a home help encourages them to seek early treatment and they return home without the danger of an immediate resumption of household duties. Together with other services giving domiciliary care, the Home Help Service has been increasingly recognised as a means by which periods of hospital treatment may be reduced and the instructions of general practitioners concerning rest and care may be fully implemented.

The Home Help Service has developed and now complements every statutory and voluntary agency in the health and welfare fields. Co-operation and liaison has increased through the years and the service supports all engaged in the National Health Service. Health Visitors, District Nurses, Mental Health Officers, Public Health Inspectors, Welfare Officers, National Assistance Officers, General Practitioners and Hospital Almoners have all become accustomed to requesting help for a wide variety of cases. Increased pressure of cases has meant that cases generally receive less hours of service a week than is desirable.

The difficulties encountered in appointing the right type of woman has become easier through the years as the reputation of the service has grown and women of intelligence and sympathy are increasingly attracted to the work.

Home Help is now an accepted community service to be called upon to alleviate many forms of distress. In the wider setting of the National Health Service Act the function of home help has been to establish and maintain these standards of comfort and care that enables patients to stay in their own homes and the work of medical and nursing staffs to proceed unimpeded by domestic anxieties.

Health Education:

The responsibilities for health education by local health authorities have been increased since the National Health Service Act became operative and the Health Committee has taken full advantage of these new opportunities. The usual methods are employed in its health educational work and grants are made to the Central Council for Health Education and to the Royal Society for the Prevention of Accidents.

A Health Exhibition was held in 1954, its aim being to demonstrate to the public what was being done on their behalf by the Health Services, and to show how best to make use of the services available.

A Guide to the Health Services of Bolton was published in connection with the Health Exhibition to provide a reference handbook for medical and lay persons. A new edition of the Handbook is at present in the process of publication.

Exhibitions have also been held in connection with a Clean Air Campaign, the prevention of Accidents in the Home, and a 'Guard that Fire' Campaign.

A Display Stand has been set up in the main infant welfare centre for the display of health education material, which is changed periodically. Leaflets are distributed at infant welfare centres, and suitable health literature is distributed at the Public Library to borrowers of books.

Special publicity campaigns have been held in connection with diphtheria immunisation, vaccination against poliomyelitis, and tuberculosis. Visits of Mass Miniature Radiography Units call for intensive efforts in health education to inform the public of the facilities available.

Lectures are given by medical officers to Parent/Teacher and other organisations, and public health inspectors give lectures concerning clean food to persons engaged in the food trade, including those in local hospitals employed in food handling. A 16 mm. sound projector and a film strip projector are available. Health visitors conduct talks at the infant welfare centres, and a special class is held weekly for expectant mothers. Classes in mothercraft, conducted by health visitors, are also held for senior girls at secondary modern schools.

A Weekly Information Sheet is sent to all family doctors giving information of joint interest to the Health Department and to general practitioners. Leaflets and posters are also distributed to general practitioners from time to time.

Arrangements have been made with the Central Council for Health Education for a number of in-service training lectures and courses for medical officers, health visitors, home helps, teachers and Children's Department staff. Refresher courses sponsored by organisations approved by Government Departments are attended by professional members of the department.

Copies of the "Health Education Journal" and "Better Health" are received in the Department.

Frequent visits to the Health Department are made by senior school children and students to study the work of various sections of the department.

Mental Health:

1. ADMINISTRATION:

(*a*) COMMITTEE:

The Personal Services Sub-Committee is responsible for the Mental Health Service.

(*b*) STAFF:

The Medical Officer of Health and his Deputy are responsible to the Committee for the running of the service which is carried out by the following staff:—

Senior Mental Health Officer (Duly Authorised)
3 Mental Welfare Officers (Duly Authorised)
1 Trainee Mental Welfare Officer
1 Occupation Centre Supervisor
4 Assistant Supervisors
1 Part-time Guide/Assistant
1 Part-time Cook
1 Domestic

This compares with the first two years of the service when one ex-Relieving Officer was endeavouring to cope with all the problems on his own.

(*c*) Training of Staff:

In building up the staff of social workers and for the Occupation Centre, he dearth of trained people has been very obvious and a policy of recruiting uitable personnel for in-service training has been adopted.

Two of the Mental Welfare Officers have completed the course run by the National Association for Mental Health in conjunction with Leeds University nd the trainee officer has been nominated for the 1959 course.

The Occupation Centre Supervisor and one Assistant Supervisor have aken the National Association for Mental Health Diploma course for teachers nd a further Assistant has been nominated for the 1959 course.

Attendance at short courses and conferences is facilitated to enable the staff o keep up to date in a field which is rapidly widening, with new techniques in reatment, care and training.

. Mental Illness:

(*a*) Investigating cases reported of persons alleged to be mentally ill:

A twenty-four hour service is maintained by the Mental Welfare Officers aking weekly duty for calls out of hours. During their week on duty they keep he Ambulance Station posted of their whereabouts when leaving home so that hey can be immediately located. During 1958 sixty-one calls were received utside normal office hours. Officers work as far as possible in their own istrict during the day and the total number of cases reported in 1958 was 261.

(*b*) Hospital cases:

Liaison with the Consultant Psychiatrist at the Psychiatric Unit of the olton District General Hospital is excellent and although only a small unit, 2 per cent of all admissions were to this hospital. The remaining admissions ere to the larger mental hospitals through the Prestwich Hospital Bed Bureau.

Fortnightly case conferences are held at the Psychiatric Unit between the ocal Authority mental welfare officers and the hospital medical and nursing aff, to which general practitioners are invited.

Out-patient clinics are held at the Unit, and at the Bolton Royal Infirmary, nd the consultant psychiatrist undertakes domiciliary visits at the request of eneral practitioners.

Extensive use was made of voluntary admission procedure and short Orders nd the number of patients certified is now down to 11 per cent of all admissions ompared to 59 per cent in 1948.

The annual admission rate of Bolton patients is 1.58 per 1,000 population, ut there is, unfortunately, a constant waiting list of approximately 12 patients, ainly the elderly senile and chronic patients.

(*c*) Community Care:

Of the cases referred to the Mental Health Service for investigation, 15 per cent were dealt with by community care, and a similar percentage required no further action after the initial cause for referral had been settled. Reporting of such cases is encouraged as a means of preventing breakdown requiring hospital care.

After-care is carried out for those patients discharged from hospital who were previously known to the service, and for other patients at the request of the psychiatrist. Sixty-seven patients were receiving regular visits at the end of 1958.

A mental welfare officer attends at two clinics each week at the Bolton Royal Infirmary to assist the psychiatrist, and social histories of patients are obtained when requested.

A feature of the after-care service is the Psychiatric Social Club for ex-hospital patients, clinic patients, and those nearing discharge from hospital, meeting each Tuesday evening. With an average attendance of 40, the Club is run by a Committee of the members themselves under the Chairmanship of the Senior Mental Health Officer. The Consultant Psychiatrist and the mental welfare officers attend regularly and a balanced programme of speakers, discussions, psychiatric films and social events, is arranged.

3. Mental Deficiency:

(*a*) Ascertainment:

All cases newly reported are visited by a mental welfare officer, and where they have not been recently seen by one of the medical officers, a visit is also made by the Deputy Medical Officer of Health.

(*b*) Supervision:

In addition to regular visits by the mental welfare officers, all cases not in employment nor attending the Occupation Centre are visited at least once a year by a medical officer. Excellent liaison exists with the Medical Superintendent, Brockhall Hospital, for consultation on difficult cases. Supervision of licence cases and visits to report on home circumstances for the provisions of Section 11 of the Mental Deficiency Act and holiday leave, are carried out at the request of the hospitals. At the end of 1958 there were 182 cases under Statutory Supervision and 20 under Voluntary Supervision.

(*c*) Occupation Centre:

A Junior Occupation Centre for 35 children was established five years ago in an adapted day nursery, and within the last two years a small group of adult males and a similar group of adult females has been created to provide a nucleus of trainees for the Adult Centre which is to be opened early in 1960.

The Centre is open for primary school terms. A bus is provided to transport the children morning and afternoon, and all trainees have their mid-day meal at the Centre, cooked on the premises.

At the end of 1958 there were 40 children on the register.

(*d*) Hospital Care:

At the end of 1958 there were 203 patients in mental deficiency hospitals, 6 of them having been admitted or transferred to 'informal' care.

There were 14 cases awaiting hospital care, some of them having been on he waiting list for several years—a most unsatisfactory position.

Short-term care is provided in cases of need to give relief to parents and o cover emergencies.

(*e*) Parents' Association:

Good relationship exists between the officers of the service and the Bolton nd District Society for Mentally Handicapped Children, and the Society have iven practical help on several occasions when help could not be secured hrough official channels.

CONCLUSION

The National Health Service Act involved great changes in the provision f health services in Bolton and elsewhere. Considerable development has ken place during the first ten years of the service and undoubtedly the mmunity has benefited.

PART III

CONTROL OF INFECTIOUS DISEASE

Notifiable Infectious Diseases

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence:

The following summary gives the number of cases of notifiable infectiou diseases, other than tuberculosis, which have been notified or otherwis ascertained.

Disease	Total Cases Notified	No. of Cases after Correction	Ascertained Cases
Diphtheria	–	–	–
Dysentery	180	187	22
Acute Encephalitis	1	1	–
Enteric Fever (including Paratyphoid)	–	–	–
Erysipelas	21	21	–
Malaria	–	–	–
Measles	98	111	–
Meningococcal Infection	–	1	–
Ophthalmia Neonatorum	2	2	–
Pneumonia—			
Acute Primary	136	136	–
Acute Influenzal	19	19	–
Acute Poliomyelitis—			
Paralytic	2	3	–
Non-Paralytic	3	3	–
Puerperal Pyrexia	4	4	–
Scarlet Fever	271	278	–
Smallpox	–	–	–
Whooping Cough	40	40	–
Food Poisoning	189	181	128*

*Includes two outbreaks of Food Poisoning at schools in the borough.

The following table gives the number of notifications of notifiable disease after correction of diagnosis, during each of the last ten years.

Disease	1949	1950	1951	1952	1953	1954	1955	1956	1957	195
Diphtheria	32	20	12	–	–	1	1	–	–	-
Dysentery	1	28	294	202	263	615	154	851	167	18
Acute Encephalitis	–	–	–	1	1	3	3	2	2	1
Enteric Fever (including Paratyphoid)	6	–	2	1	2	2	5	–	–	-
Erysipelas	36	30	24	39	22	34	30	32	22	2
Malaria	–	–	*1	–	*1	*1	*1	1	–	-
Measles	522	1881	1800	2369	1308	672	2205	714	2793	11
†Cerebro-Spinal Fever	2	–	–	–	–	–	–	–	–	-
†Meningococcal Infection	–	3	2	–	7	4	1	3	7	1
Ophthalmia Neonatorum	2	1	1	–	–	2	2	3	4	2
‡Pneumonia	85	56	214	273						
Acute Primary					94	123	123	145	153	13
Acute Influenzal					21	33	20	13	151	1
§Acute Poliomyelitis	9	5	1							
Paralytic				8	1	1	7	8	4	3
Non-Paralytic				1	2	–	2	6	12	2
Puerperal Pyrexia	7	3	4	5	7	2	5	5	6	4
Scarlet Fever	296	149	448	351	246	149	74	94	131	27
Smallpox	–	–	–	–	–	–	–	–	–	-
Whooping Cough	431	583	278	220	593	167	244	319	73	4
Food Poisoning	–	4	46	54	66	53	1129	215	150	18

*Induced for therapeutic purposes.
†From 1950 onwards Cerebro-Spinal Fever has been notifiable as 'Meningococcal Infection'.
‡The figures prior to 1953 include all forms of pneumonia.
§The figures prior to 1952 include both forms of poliomyelitis.

Deaths from Infectious Diseases, 1949-1958 inclusive:

Disease	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Diphtheria	–	1	–	–	–	–	–	–	–	–
Dysentery	–	–	–	–	–	–	–	2	–	–
Diarrhoea and Enteritis under 2 years of age	2	5	5	3	–	1	–	1	–	–
Acute Encephalitis	3	–	1	2	–	2	4	–	–	–
Enteric Fever (including Paratyphoid)	–	–	–	–	–	–	–	–	–	–
Erysipelas	–	–	–	–	–	–	–	–	–	–
Malaria	–	–	–	–	–	–	–	–	–	–
Measles	–	1	2	–	3	–	1	1	–	–
Meningococcal Infection	1	–	–	–	–	–	1	1	–	–
Ophthalmia Neonatorum	–	–	–	–	–	–	–	–	–	–
All forms of Pneumonia including—	64	78	103	74	112	51	69	65	127	**92**
Acute Primary Pneumonia					36	16	20	16	27	**25**
Acute Influenzal „					2	3	3	1	17	**2**
Acute Poliomyelitis	–	2	–	3	1	–	2	–	–	–
Puerperal Pyrexia	–	–	–	–	–	–	–	–	–	–
Scarlet Fever	–	–	–	–	–	–	–	–	–	–
Smallpox	–	–	–	–	–	–	–	–	–	–
Whooping Cough	2	2	–	1	1	–	–	–	–	–
Food Poisoning	–	–	–	–	–	–	2	–	–	–

Diphtheria:

No case of diphtheria was notified. There has not been a single case of diphtheria in the borough since 1955.

Dysentery:

The number of cases notified was 180, and as usual the first quarter of the year had a greater number of cases than any subsequent quarter. There was not a single large outbreak during the year but there were three outbreaks in day nurseries which, though the numbers were not large, were nevertheless a nuisance as several children had to be excluded from the nursery until they were bacteriologically clear, which meant in some cases the mother having to stay at home from work. Merehall Nursery was unfortunate in that, despite the meticulous care and attention the children receive and the emphasis on hygienic toilet habits, two outbreaks occurred. In the first outbreak in January, out of 44 children attending the nursery 16 were affected and were bacteriologically positive. One member of the staff was also affected.

The outbreak in June was confined to the babies' section of the nursery. Of 14 children in the babies' group, 8 children were affected and bacteriological proof was obtained. In the older age groups, out of 30 children only one was affected, and none of the staff dealing with the older children was affected.

In December there was a small outbreak of dysentery at Shaw Street Nursery when six children were affected.

In each of these outbreaks the method of dealing with the situation has been to take faecal specimens from all children and staff as soon as it became clear that several cases of dysentery had occurred. Any children and staff who were bacteriologically positive were excluded until three negative specimens had been obtained. In each case the outbreak quickly subsided after this procedure had been carried out.

Encephalitis:

Only one case of encephalitis occurred. This was in a child aged 20 months who developed encephalitis following rubella. Her recovery, though slow, was uneventful and complete.

Enteric Fever

For the third year in succession there was no case of enteric fever.

Malaria:

No case of malaria occurred, nor was malaria induced for therapeutic purposes in any individual.

Measles:

One hundred and eleven cases of measles were notified. This is the smallest number of notifications of measles for many years, and in view of the low morbidity of this disease it can now be said that it is only a trivial illness.

Whooping Cough:

After correction of diagnosis, only 40 cases of whooping cough were notified. This is the smallest number of cases notified since 1942. In view of the fact that the number of cases notified in 1957 was also low, there appears to be no doubt that this decrease in the number of cases of whooping cough is due to the immunisation programme. It is particularly pleasing to note that only six cases of whooping cough occurred in children under one year. One of the important reasons for the immunisation programme against whooping cough is to protect children in this age group as it is at this time when whooping cough exhibits its greatest mortality and morbidity.

Meningococcal Infection:

Only one case was notified.

Poliomyelitis:

Six cases of poliomyelitis occurred, of which three were paralytic and three non-paralytic. The details are given below.

Date of Notification	Sex	Age	Paralytic or Non-paralytic
23. 7.58	Female	6	Non-paralytic
15. 9.58	Female	30	Paralytic
20. 9.58	Male	3	Non-paralytic
28.10.58	Female	3	Non-paralytic
26.11.58	Male	14 months	Paralytic
29.11.58	Female	7 months	Paralytic

The paralytic cases are worthy of comment. A thirty year old female developed paralytic poliomyelitis whilst staying with friends in Bolton, but as the disease developed only five days after coming to Bolton from her home in the south of England it is thought that she was incubating the illness when she arrived here. The second case involved a boy aged fourteen months and resulted in paralysis of both legs. The third case was a baby aged seven months who developed a flaccid paralysis of the left deltoid after having had an undiagnosed febrile illness for five days before the onset of the paralysis. It is noteworthy that the paralysis developed three and a half weeks after an injection of triple antigen given into the left deltoid.

No case of poliomyelitis occurred in a vaccinated person, and no case has occurred in a vaccinated person since vaccination against poliomyelitis started in 1956.

During the year a female aged 36 died from the sequelae of poliomyelitis contracted during 1957. She was severely paralysed and had a partial respiratory paralysis, and although the terminal condition was pneumonia it would be correct to attribute this death to the original attack of polio.

Ophthalmia Neonatorum:

Two cases of ophthalmia neonatorum were notified.

Puerperal Pyrexia:

Four cases of puerperal pyrexia were notified. All were mild.

Food Poisoning:

One hundred and eighty-nine cases of food poisoning were notified. There were two moderately large outbreaks of food poisoning due to heat resistant Cl. welchii infection. Each outbreak was at a school in the borough. The details are as follows:—

The first outbreak occurred late in April when there was a period of unusually warm weather. Early in the morning of the 23rd April a large number of children and members of the staff of a residential school commenced to have severe abdominal pain accompanied by diarrhoea. On investigation it was found that persons who were resident at the school, and also day pupils and staff who attended daily, were also affected with the same symptoms. It became apparent that the only common article of diet which had been taken by all the affected persons was boiled mutton. This mutton had been boiled on the afternoon of the 21st April in a large pan. It was left in the pan in the liquid in which it was boiled in a warm place overnight. Without further heating it was served cold for lunch on the 22nd April.

Twenty-two faecal specimens were taken from children and staff who had symptoms. Twenty of these specimens were positive for heat resistant Cl. welchii. No salmonellae or staphylococci were grown.

The mid-day meal was consumed by all affected persons at approximately 12 noon on the 22nd April. They started with symptoms at approximately 5 a.m. on the 23rd April. The incubation period was therefore about seventeen hours. The clinical features of abdominal pain accompanied by diarrhoea without vomiting suggest that the infection was due to Cl. welchii. The laboratory reports confirmed this, and the incubation period was in keeping with a Cl. welchii infection.

Unfortunately, at the time of the investigation, no remnant of the suspected meal could be obtained. In almost every report of outbreaks of Cl. welchii food poisoning meat has been the vehicle of infection, and frequently cold meat which has been cooked on a previous day has been responsible.

In one case, that of a domestic worker, the symptoms were so severe that she was admitted to hospital. She was seriously ill for several days and was not discharged until three weeks later.

Faecal specimens taken a week later from cases who were positive were all negative, and this suggested that the organism does not persist in the faeces.

Details of the second outbreak are as follows:—

On an evening in December a Dinner, attended by prefects, teachers and members of the Education Department, was held at a large secondary school. One hundred and nine people had the meal, and at approximately six o'clock next morning over 70 persons started to have abdominal pain and diarrhoea which was in some cases severe. Symptoms were most pronounced from about 9 a.m. onwards, and twelve children and one teacher were admitted to hospital that day in view of the severity of the symptoms.

The meal consisted of—Chicken Soup; Steak and Kidney Pie. Creamed and Roast Potatoes, Carrots, Peas; Apple Tart and Cream Coffee; Bottled Cider and Bottled Lemonade.

Faecal specimens from 26 of the affected persons were submitted to the laboratory and 22 grew a heat resistant non-haemolytic Cl. welchii.

The catering firm which supplied the meal was in a neighbouring county borough and was investigated by the Health Department of that borough. Nothing remained of the food consumed at the meal but a meat pie baked at the same time as those eaten at the dinner, together with cream of the same batch as that consumed at the meal, were examined bacteriologically. The meat pie grew a Clostridium, but this was not a Clostridium welchii. Therefore, although bacteriological proof was not forthcoming, there does not seem to be much doubt that the outbreak was due to the meal, and there is a possibility that the meat pie was responsible.

These two outbreaks of Cl. welchii food poisoning suggest that the features of this type of food poisoning are as follows:

i. A large proportion of the people who eat the meal become affected.

ii. A large proportion of the affected persons excrete Cl. welchii in the faeces.

iii. The characteristic symptoms appear to be diarrhoea and abdominal pain, but vomiting is seldom prominent.

iv. The carrier state is of short duration, and most affected persons do not excrete the organism for more than a few days.

v. Although the symptoms are usually mild, occasionally a person is severely affected, as was the case in the first outbreak when a middle-aged woman required transfusion therapy for several days.

ieneral Administration of the Control of Infectious Diseases:

Public health inspectors carried out 601 visits, and health visitors 81 visits) make enquiries concerning infectious diseases.

The number of pathological specimens sent for examination to the Depart-ient of Pathology at the Bolton Royal Infirmary was 1,747. The types of)ecimens examined, and the results obtained, are shown in the following ble:—

Specimens	Pathogenic Organism Found	Positive	
ieces	Sh. Sonnei	149	
	Salmonella typhimurium	12	
	Other Salmonellae	6	
	Staphylococcus aureus	4	
	Heat resistant Cl. welchii	70	
ctal Swab	Sh. Sonnei	1	
	Number of **negative** specimens		1,489
ind Swab	Staphylococcus aureus, coagulase positive	1	
	Number of **negative** throat, nasal, hand and nail swabs		15
	TOTALS	243	1,504

Notices under the Public Health (Infectious Diseases) Regulations, 1953 re served upon six persons who were proved to be Salmonella carriers and o were food handlers. They were required to do no further work in food emises until they were proved to be free from infection. Five persons sub-tted claims for compensation, and £55 13s. 11d. was paid.

The following table shows the number of persons to whom special attention s directed in view of the fact that their occupation involved a higher risk infection to others.

Category	Examinations for	
	Sonne Dysentery	Other Intestinal Infections
FOOD HANDLERS		
Positive	4	12
Negative	17	40
NURSERY STAFF		
Positive	4	–
Negative	22	1
HOSPITAL STAFF		
Positive	1*	–
Negative	1	7
SCHOOL STAFF		
Positive	–	8
Negative	–	7
HOME HELPS		
Positive	–	–
Negative	1	1
TOTALS ..	50	76

* District Nurse

Certificates were issued in accordance with the authority given to th Medical Officer of Health under Ministry of Health Circular 115/48 for th purpose of claiming National Insurance sickness payments in respect of twelv contacts or carriers of infectious disease who, because of the nature of thei employment, were in a position to spread infection.

Once again I would like to thank the staff of the Pathological Laborator at the Bolton Royal Infirmary for their willing help in examining specimen and assistance in the interpretation of the findings.

TUBERCULOSIS

Dr. J. B. Mitchell, Consultant Chest Physician, has kindly supplied th following information.

Notifications:

AGE AND SEX DISTRIBUTION OF NOTIFIED CASES:

Respiratory Tuberculosis

Age in Years	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 up-wards	Tota No. o Case
Males	–	2	1	2	1	6	10	9	4	7	4	46
Females.. ..	–	1	–	–	5	1	7	10	4	1	3	32
TOTALS ..	–	3	1	2	6	7	17	19	8	8	7	78

Non-Respiratory Tuberculosis

Age in Years	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 upwards	Total No. of Cases
Males	–	–	–	1	–	–	–	1	–	–	–	2
Females.. ..	–	1	–	–	2	3	–	–	2	–	1	9
TOTALS ..	–	1	–	1	2	3	–	1	2	–	1	11

At the end of December the number of cases on the tuberculosis register was 685—slightly less than the 713 of a year previously.

Deaths:

Respiratory Tuberculosis

Age in Years	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 upwards	Total No. of Cases
Males	–	–	–	–	–	–	–	1	–	–	4	5
Females.. ..	–	–	–	–	–	1	–	1	2	–	3	7
TOTALS ..	–	–	–	–	–	1	–	2	2	–	7	12

There were 6 cases where tuberculosis was revealed from death certificates and where tuberculosis was the primary or contributory factor at death.

Non-Respiratory Tuberculosis

There were 4 deaths from this cause (3 males, and 1 female).

Summary of the Work of the Chest Clinic:

	1950	1951	1952	1953	1954	1955	1956	1957	**1958**
No. of new cases notified	105	153	127	96	87	87	90	101	89
No. of deaths	43	48	47	24	26	18	16	14	**16**
No. of attendances of new cases	901	1,255	1,454	1,144	1,127	1,217	1,624	1,722	**1,682**
No. of cases referred from Mass Miniature Radiography Units	4	4	148	10	49	463	20	18	**30**
Artificial Pneumothorax and Pneumoperitoneal refills	1,455	1,498	2,351	2,200	2,115	1,692	956	323	82
B.C.G. vaccinations ..	8	47	52	89	94	84	125	96	**129**
No. of contacts examined	151	671	580	438	401	463	749	689	**866**
Total attendances at clinic	5,365	6,772	6,298	6,745	7,354	6,901	6,510	5,674	**5,078**

Of the 866 contacts examined, 8 had active tuberculosis.

Our health visitors and two of our medical officers are concerned with contact tracing and B.C.G. vaccination. These health visitors are employed full-time on this work and the two medical officers have special responsibility.

General Comment:

Attendances for artificial pneumothorax and pneumoperitoneum have now ceased. This form of treatment is now obsolete having been replaced by the more efficient treatment with antibiotics and chemotherapy.

It appears that the number of new cases notified is becoming fairly static. Also, the number of deaths is becoming fairly constant though at a lower level than formerly.

These figures give further support to what has already been stated many times—that the situation in regard to tuberculosis does not justify complacency or any relaxing of the anti-tuberculous measures such as contact examination, B.C.G. vaccination, etc.

Care and After-Care of Patients suffering from Tuberculosis:

The responsibility for care and after-care of patients suffering from tuberculosis was placed upon the Local Health Authority under Section 28 of the National Health Service Act, 1946. This duty was again carried out in co-operation with the chest clinic staff, partly in the course of clinic sessions and partly through the monthly meetings of the After-Care Panel. This consists of medical officers of the chest clinic and the Health Department, health visitors, and a representative from the Housing Department.

After-Care Panel:

Ten meetings were held during the year and cases were discussed on first notification and again when discharged from hospital, and at any other time when need arose.

Eighty-one new cases were discussed, 92 cases considered on discharge from hospital, and many other cases arising from time to time were investigated, some of them on several occasions.

In this way all the resources of the Chest Clinic, Health and Housing Departments, and other sources of help and rehabilitation, were co-ordinated to secure all possible help to patients. Treatment cannot be considered complete until the disease is arrested and the patient successfully established in satisfactory and suitable employment again.

Rehousing:

Much of the work of the above Panel concerned applications for rehousing on the grounds of tuberculosis, and each case was carefully considered and priority assessed in the light of degree of disease, accommodation needed, and present surroundings, etc., before a recommendation was made to the Housing Committee. During the year, 15 recommendations were made and fresh accommodation was provided for 12 cases. Some will be dealt with later.

Financial Assistance:

This is normally supplied, if needed, by the National Assistance Board, xtra assistance being available for patients suffering from tuberculosis.

Other After-Care Activities:

Some cases not qualifying for this assistance and yet having a genuine need ere given help by the Health Department or were referred to voluntary bodies uch as the Red Cross or British Legion. During the year the Authority made rovision for the following cases—

One patient who was discharged from hospital was supplied with pillows.

The Authority approved the payment of an outstanding fuel bill (£1 12s. 11d.) for a patient who was in receipt of National Assistance.

The Home Nursing Service undertook the care of 129 patients at home ıost of whom were requiring streptomycin injections. Many others attended at ıe Health Department for these injections, especially those working.

The Home Help Service assisted 10 patients.

Sick room equipment was loaned free of charge.

Nine children were admitted to residential nurseries by arrangement with ıe Children's Officer.

The Tuberculosis health visitors paid 3,154 home visits during the year.

Several meetings were held with the Disablement Rehabilitation Officer and ıe Chest Physician in the chest clinic, and patients considered fit for work ere interviewed with a view to finding them suitable light and sheltered mployment, or arranging re-training in a fresh job.

.C.G. Vaccination:

This protection against the risk of infection was offered to certain contacts, ıostly children and especially babies. During the year there were 129 vaccina- ons performed, 41 of which were babies.

.C.G. Vaccination of School Children:

There has been no change in the organisation or the age groups of children ho were tested for sensitivity to tuberculin and who were, if negative, offered ıccination against tuberculosis.

A total of 1,887 children were given a Mantoux test and of these 29 were sent for reading. Of the remainder 553 gave a positive reaction—29.7 per nt. Consent for X-ray was given in respect of 487 children of this group. ineteen films showed the following abnormalities:—

1 Two small calcified foci in the left middle and lower zones. No active lesion

1 Some enlargement and calcification of the (L) hilar shadow, probably no active lesion

1 Calcified lesion in (R) upper lobe. Old T.B. case

2 Calcified focus in (R) upper lobe

1 Old lesion in (L) upper lobe, almost certainly inactive

1 Doubtful opacity in (L) upper lobe

1 Small area of calcification in the (R) apex and at the right hilum. Azygos vein lobe. Large calcified left apex.

1 Chest a little emphysematous

1 Calcified (L) Primary Complex

1 Calcification ++ both hilar regions

1 Healed focus (R) base

1 Kypho-scoliosis—heart and lungs normal

1 Calcification (L) apex

2 Glandular focus LMZ

1?Glandular focus LMZ

1 Calcification of (L) hilum

1 Large calcified mass in the (L) mid zone. No active lesion seen.

The number of children who gave negative reactions was 1,305. Of the only 2 children were not vaccinated; one parent refused, and one was n vaccinated as the family was leaving the country.

Analysis of Positive Reactors by Age Group

Age Group	Total No. of children	No. found positive	% positive
12 years	68	20	29.4
13 ,,	1,513	444	29.3
14 ,,	276	88	31.8
15 ,,	1	–	–
All Ages:	1,858	552	29.7

VENEREAL DISEASE

Dr. Philip S. Silver has supplied the following information which relates to Bolton residents only in attendance at his clinic.

There has been a further decrease of 43 in the number of cases from the County Borough of Bolton compared with last year. One case of primary syphilis occurred in the borough, but the infection came from Manchester. The remaining 18 cases of syphilis were all of some years' standing. Once again there were no cases of congenital syphilis under the age of 15 years. Out of 17 cases referred from the ante-natal clinics, 3 were found to be suffering from syphilis (2 congenital, 1 acquired). This decrease is expected to continue in the ensuing years.

There were 57 cases of gonorrhoea, an increase of 2 on the previous year. There is still a fair proportion of gonorrhoeas being treated by general practitioners without reference to the clinic and with most of these cases the contacts are never traced.

The biggest decrease in new cases was in those designated as non-venereal which at 214 showed a decrease of 42. Thirty-five cases were referred by the Moral Welfare Worker for routine testing before admission to homes. The clinic staff carried out 117 domiciliary visits to ascertain the cause of non-attendance.

The following table summarises the situation for the past twelve years :—

	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	**1958**
Syphilis	162	113	97	93	44	58	48	36	43	23	22	**19**
Gonorrhoea	125	102	104	77	80	64	50	60	75	58	55	**57**
Non-Venereal Disease ..	390	463	449	481	405	334	316	333	237	286	256	**214**
TOTALS ..	677	678	650	651	529	456	414	429	355	367	333	**290**

The figures show that there has been a continued fall in the number of cases of syphilis of all types which is in line with a general decrease throughout the country and that there has been a smaller increase in the number of cases of gonorrhoea in the borough than there has elsewhere.

PART IV

ENVIRONMENTAL HYGIENE

Work of the Public Health Inspector

Housing and Slum Clearance

Air Pollution

Inspection and Supervision of Food

General Sanitation

Disinfection and Disinfestation

Report by the Borough Analyst

Statistical Tables

Appendix—Research on Air Pollution in Bolton

REPORT OF THE CHIEF PUBLIC HEALTH INSPECTOR

Twenty years ago the Inspectors in this section were largely concerned with housing defects, food inspection and general sanitation.

Nowadays the duties have changed considerably, whilst it is as necessary as ever that an Inspector shall have an expert knowledge of building construction and that he shall preferably be specially qualified as a food inspector, it is also desirable that he should be knowledgeable and qualified in the field of fuel technology.

The highlights of the work of the section during the past year have been the repair of houses so as to maintain a suitable standard and to prevent them becoming slums, the demolition of old, worn-out houses, either as individual units or by large clearance area procedure, the investigation of air pollution involving research which is the subject of a special report, and the introduction of smoke control areas. The close supervision of food preparation premises and food hygiene generally has been maintained, and selective sampling of imported foodstuffs has been carried out to locate the source of contamination by insects and rodents.

It will be seen that pest control has been so linked with food hygiene that believing in a policy of prevention being better than cure, owners of food premises have found it convenient to enter into contracts with the Health Department for regular control visits by the operatives. The income from this source has now reached the sum of £2,586 11s. 10d., and where, some six years ago, it was not uncommon to receive articles of food containing rodent contaminants, this type of complaint has practically disappeared from food products manufactured in Bolton.

Although occasionally it has unfortunately been necessary to have recourse to legal proceedings, the majority of the work done has been achieved by persuasion and education.

Members of the inspectorate gave many talks to women's associations and to professional bodies on subjects ranging from food hygiene to air pollution. Enquiries received during the year from other Corporations in connection with food contamination and smoke control have been very numerous.

Staff:

At the end of the year the staff comprised:—

Chief Public Health Inspector
Deputy Chief Public Health Inspector
3 Specialist Food Inspectors
1 Specialist Smoke Inspector
5 Specialist Housing Inspectors
1 Specialist Food and Drugs Sampling Officer
12 District Public Health Inspectors
4 Pupil Public Health Inspectors

School Hill Disinfecting Station

Foreman
6 Rodent Operatives

Two Specialist Public Health Inspectors resigned during the year, the vacancies being filled by promotions within the department. Three Pupil Public Health Inspectors passed their qualifying examinations and were duly appointed as District Public Health Inspectors in the department.

During the year 1 Specialist Inspector passed the Royal Society of Health Examination in Sanitary Science as applied to Buildings and Public Works; 1 District Inspector gained the Smoke Inspector's Certificate, and a further District Public Health Inspector obtained the Food Inspector's Certificate.

Work Done:

The details of complaints received from the public, types of premises subject to routine inspection—with or without complaint, a summary of visits and inspections for the purpose of detecting sanitary defects, details of notices served, a summary of legal proceedings taken to secure repair of properties, and details of sanitary improvements effected are given in Tables 1 to 6, on pages 139 to 145.

HOUSING AND SLUM CLEARANCE

Deferred Demolition and Clearance Areas:

The Bolton (Bradford Ward No. 1) Compulsory Purchase Order, 1958, includes 328 dwelling-houses and 38 combined shops and dwellings and other business premises. A Public Inquiry was held on the 12th August, 1958; the result of the Inquiry is awaited. Objection has been lodged against the inclusion of 24 properties within the Order; representations have been made to the Minister that 5 of these and 18 other properties have been well maintained and ought to be the subject of well maintained payments. In the opinion of the Chief Public Health Inspector, of the 42 properties the subject of either objection or claim for well maintained payment, only 6 have been well maintained.

The Bolton (West Ward No. 1) Clearance Area and the Bolton (Thomas Street) Clearance Area were represented to the Health Committee on the 11th June, 1958, when it was resolved to recommend the making of Compulsory Purchase Orders. This recommendation was confirmed by the Council on the 25th June, 1958. There are 108 dwelling-houses and 6 combined shops or offices and dwellings included in these areas. Aproximately 326 persons will require re-housing. As a consequence of objections from owners of properties included in the areas a Public Inquiry will be held.

During the year inspections were commenced to deal with properties in the Bradford Ward, Derby Street and the third year "Deferred Demolition" clearance areas, in accordance with proposals submitted by the Council to the Minister of Housing and Local Government under section 1 of the Housing Repairs and Rents Act, 1954.

The Council's Slum Clearance Programme is in respect of unfit houses (*a*) to be dealt with by way of clearance areas in the five years 1956 to 1961, and (*b*) individual unfit houses which are intended to be the subject of demolition or closing orders.

Routine Housing Inspections:

The Housing Act, 1957, requires every local authority to cause an inspection to be made of their district with a view to ascertaining whether any house therein is unfit for human habitation. To comply with this requirement many inspections have been made and appropriate action has been taken. These inspections are in addition to the detailed housing inspections carried out in connection with the Slum Clearance Programme prepared by this Local Authority in 1955.

Enquiries from Purchasers of Houses:

Occasionally it has been noted that persons intending to buy properties within the borough have not made full enquiries at the Council offices as to their position in relation to the Slum Clearance Programme. The Housing Inspectors in the course of their duties have advised interested persons to make appropriate enquiries before committing themselves to the purchase of any premises which may be the subject of clearance action.

The department gives information in writing on the Slum Clearance Programme, when requested, and during the year 1,275 enquiries were so dealt with.

Two thousand two hundred and ten Land Charges enquiries from potential purchasers of properties within the borough have been dealt with.

Compensation:

Under the Housing Act, 1957, payments may be made in respect of condemned houses which have been well maintained by either the occupier or the owner.

Temporary provisions have also been made for payments to owner-occupiers and others in certain circumstances in respect of unfit houses purchased, closed or demolished under parts II or III of the Act.

Payments may be made by a local authority towards removal expenses or loss sustained through disturbance of trade or business as a consequence of action taken under the Housing Act, 1957.

Improvement Grants:

The Borough Engineer has kindly supplied the following information in respect of improvement grant applications for the year 1958:—

Number of applications received	235
Number of applications approved by Council	230
Number of applications refused	1
Number of applications cancelled	4

The Borough Engineer states that in all cases applicants are interviewed, and where possible, inspections are carried out so that advice can be given prior to the applications being made, so as to obviate the necessity for the refusal of applications.

In addition, the Borough Engineer requests advice from the Health Department in all cases as to whether or not the houses concerned are likely to have a life of not less than 15 years. Such information is in the nature only of a provisional estimate, based on the Chief Public Health Inspector's appreciation of the situation, as the Corporation's approved programme of slum clearance does not extend beyond a period of 5 years.

Certificates of Disrepair—Rent Act, 1957:

The number of applications for certificates under the Rent Act, 1957, received during the year 1958 proved to be smaller than had been anticipated; details are given in the table below. In view of the complexity of the certificate of disrepair procedure, all applications have continued to be dealt with by a special Sub-Committee, and during 1958 this work was entrusted to the Insanitary Areas and Premises Sub-Committee. It is pleasing to record that despite the contentious nature of this legislation, there have been no appeals to the Courts against any of the Sub-Committee's decisions.

It is interesting to note that in many cases where landlords have given undertakings to remedy defects but have not done so within the permitted period of 6 months, tenants have, in many instances, waited for considerable periods before applying for Certificates as to the Remedying of Defects.

APPLICATIONS FOR CERTIFICATES OF DISREPAIR:

Number of applications for certificates		201
Number of decisions not to issue certificates...		–
Number of decisions to issue certificates:		
(*a*) in respect of some but not all defects...	129	
(*b*) in respect of all defects...	13	
		142
Number of undertakings given by landlords under paragraph 5 of the First Schedule		102
Number of undertakings refused by Local Authority under proviso to paragraph 5 of the First Schedule		1
Number of certificates issued		142

APPLICATIONS FOR CERTIFICATES AS TO THE REMEDYING OF DEFECTS:

Number of applications by tenants	65	
Number of applications by landlords	3	
		68
Number of certificates issued		68

APPLICATIONS FOR CANCELLATION OF CERTIFICATES:

Applications by landlords to Local Authority for cancellation of certificates	44
Objections by tenants to cancellation of certificates	8
Decisions by Local Authority to cancel despite tenants' objections	2
Certificates cancelled by local authority	29

Housing Statistics:

HOUSES NOT INCLUDED IN CLEARANCE AREAS:

Action was taken under the appropriate enactments as follows:—

NEW ACTION:

Houses represented under Section 16 of the Housing Act, 1957	112
Demolition Orders made	31
Closing Orders made	52
Undertakings not to re-let for human habitation	–

COMPLETED ACTION:

Houses demolished	164
Persons rehoused	365
Houses closed	34
Persons rehoused	88
Cases pending at close of the year	58

Appeal:

The owners appealed against a demolition order made on the 10th September, 1958, in respect of 89 Adelaide Street. The appeal was heard at the County Court on 26th November, 1958, and judgment given for the owners, the demolition order being converted to a closing order. The Corporation have entered an appeal to be heard in the High Court.

Eviction Proceedings:

Eviction proceedings were taken against the occupiers of 38 Green Street and 60 Slaterfield respectively. In the former case an order for possession within 28 days was granted, but the tenant found alternative accommodation himself before the expiration of that period. In the latter case an order for possession was granted and subsequently a warrant was given by the Borough Magistrates' Court, but it was found unnecessary to use this as the tenants had found alternative accommodation.

Housing Inspections:

INSPECTION OF DWELLING-HOUSES

1. Dwelling-houses inspected for housing defects (under Public Health Act or Housing Acts)	2,697
Inspections made for the purpose	9,710
2. Dwelling-houses (included under sub-head (1) above) which were inspected under the Housing Consolidated Regulations, 1925, as amended by the Housing Consolidated Amendment Regulations, 1932	264
Inspections made for the purpose	264

REPAIRS—INFORMAL ACTION

Unfit or defective houses rendered fit as a result of informal action by the Local Authority under the Public Health Act or Housing Acts	421

ACTION UNDER STATUTORY POWERS

PUBLIC HEALTH ACT, 1936

Houses in which defects were remedied after service of formal notices:—

By owners	687
By Local Authority in default of owners	9

HOUSING ACT, 1957

No action under Sections 9 or 10.

AIR POLLUTION

Measurement of Pollution:

The Corporation has participated in the national scheme of atmospheric pollution measurement by means of standard deposit gauges and lead peroxide candles for many years. This method of measurement though less informative than the volumetric method is valuable due to the long-term records available for comparison of conditions in the borough and for comparison with other areas where facilities for investigation by the volumetric method are not available. There are 7 standard deposit gauges and 3 lead peroxide candles in use.

The downward trend in smoke pollution measured by the deposit gauge which has been evident from 1954, has been maintained, this is readily followed by reference to Tables 7 and 8 on page 146. Though not uniform, the improvement is shown at each of the 6 stations for which records are available. These are widely dispersed about the borough and it would appear that the improvement is due to reduced emissions from industrial premises consequent on the installation of more efficient fuel burning apparatus and more careful operation of new and existing plant.

Industrial:

Section 1 of the Clean Air Act, 1956, and Regulations made thereunder govern the permissible emissions of dark smoke and became operative on the 1st June, 1958. In the subsequent seven months, 85 official observations, for one or more hours, were made on industrial chimneys. In 43 cases the standards laid down in the Regulations were exceeded. In each of these cases formal written notification was made and the circumstances investigated in order to ascertain the best method of securing improvement.

Improvements to industrial installations during the year included:—

1 Lancashire boiler converted from hand firing to oil burning
1 Cornish boiler converted from hand firing to oil burning
5 Lancashire boilers converted from hand firing to mechanical stoking by coking type stokers
1 Additional Lancashire boiler fitted to relieve overloading
1 Large chain grate mechanical stoker fitted to water tube boiler
2 Cupola furnaces fitted with wet grit arresting equipment
4 Lancashire boilers converted to smokeless fuel burning
1 Cornish boiler converted to smokeless fuel burning

Smoke Control Areas:

Two Smoke Control Orders became operative during 1958, covering 60 acres and affecting 408 premises. These together with the existing Town Centre Smokeless Zone place a total of 146 acres and 1,453 premises under this form of control.

	Acreage	No. of Premises	Operative date
Bolton (Town Centre) Smokeless Zone	86	1,050	1st November, 1954
Bolton (East Ward) Smoke Control Area	58	322	1st June, 1958
Bolton (Crook Street) Smoke Control Area	2.1	81	1st November, 1958

Three contraventions of the Orders, two in domestic premises and one in commercial premises, resulted in legal proceedings being taken. In each case the Justices imposed a fine of £2.

Research:

The 9 additional air sampling stations introduced for research purposes have continued in operation and are the subject of a separate report by the Chief Public Health Inspector and the Borough Analyst on pages 163 to 170. The statistics showing the annual pollution recorded for smoke, sulphur dioxide and polycyclic hydrocarbons, viz., 3 : 4 Benzpyrene; 1 : 12 Benzperylene; and Pyrene, are given in Tables 9 to 19 on pages 147 to 156.

INSPECTION AND SUPERVISION OF FOOD

Milk:

Milk and Dairies Regulations, 1949 to 1954:

No. of Dairies	11
No. of Milk Shops	708
No. of Dairy Vehicles	163
No. of Milk Distributors	879

Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949 to 1953:

Milk (Special Designation) (Raw Milk) Regulations, 1949 to 1954:

The above-mentioned Regulations permit the use, under licence, of "special designations", e.g. "Tuberculin Tested", "Pasteurised", etc., in relation to milk produced and distributed under the conditions laid down in the Regulations. The following licences were granted:—

"Pasteurised Milk"—Pasteurisers' Licences	2
,, ,, —Dealers' Licences	45
,, ,, —Supplementary Licences	25
"Sterilised Milk"—Sterilisers' Licences	1
,, ,, —Dealers' Licences	591
,, ,, —Supplementary Licences	26
"Tuberculin Tested (Pasteurised) Milk—Dealers' Licences	36
,, ,, ,, ,, —Supplementary Licences ...	24
"Tuberculin Tested (Sterilised) Milk—Dealers' Licences	–
,, ,, ,, ,, —Supplementary Licences ...	–
"Tuberculin Tested Milk"—Dealers' Licences	36
,, ,, ,, —Supplementary Licences	20

Milk (Special Designations) (Specified Areas) (No. 2) Order, 1954:

This Order defines an area, which includes the area of the County Borough of Bolton, in which no milk may be sold by retail, unless it has either (*a*) been derived from a tuberculin tested herd and/or (*b*) has been treated by pasteurisation or sterilisation to destroy infection. No infringements of the Order came to light during 1958.

It should be noted that the Order does not apply to cream, which may still be lawfully sold by retail, even though it has not been derived from a tuberculin tested herd or been suitably treated by heat.

Dairies and Dairy Vehicles:

	Dairies	Dairy Vehicles
No. of Inspections	105	241
No. of Notices served	10	16

The majority of dairy vehicles are of a fair standard and several new vehicles have been brought into use throughout the year. The bulk of the vehicles belonging to the largest dairies are well maintained and in good order.

Sampling of Milk for Bacteriological Examination:

Samples of milk were taken regularly from dairies, pasteurising establishments, milk shops and schools, and during the course of delivery to retail consumers. The results of the examinations are given on page 136.

Five samples of designated milk failed to comply with the methylene blue test. The findings were reported to the Area Milk Production Officer of the Ministry of Agriculture, Fisheries and Food.

Biological Sampling of Milk:

One-hundred and one samples of milk from various sources were submitted to the Pathological Laboratory of the Bolton Royal Infirmary for examination for tubercle bacillus. One sample only was found to be positive, and the Ministry of Agriculture, Fisheries and Food were notified for action by them.

Cleanliness of Milk Vessels:

Twenty rinses from milk bottles and 8 rinses from milk churns were taken at various dairies in the town. Six were unsatisfactory, and the managers concerned were informed and appropriate action taken by them.

Sampling of Milk for Chemical Analysis:

Details of samples taken are given on page 136. Seven samples were reported as unsatisfactory.

In some of those cases where a number of samples had been taken from several churns from the same supplier, while individual samples were found to be below the legal standard the average for the consignment as a whole was satisfactory.

During the first half of the year several milk samples were found to contain small quantities of added water, but warning letters, followed by further sampling, yielded satisfactory results.

One sample of milk was found to contain 25 per cent. extraneous water, but investigation at the farm revealed extenuating circumstances and legal action was not instituted. Subsequent samples of milk from this source have proved satisfactory. The circumstances in this case were fully discussed with the Town Clerk.

Bacteriological Examination of Ice Cream:

Seventy-three samples of ice cream were taken for bacteriological examination from producers and retailers. Particular attention was again given to "loose" ice cream produced by manufacturers within the borough. Twenty samples were reported as unsatisfactory according to the provisional grading of the Sub-Committee of the Public Laboratory Service. Details of these samples are given in Table 20 on page 156. During the year a series of unsatisfactory samples from two manufacturers caused some concern and special investigations were undertaken to trace the cause. Suggestions were made regarding general washing and sterilising procedures and in both cases the later samples showed a marked improvement. Further samples will show whether the improvement is being maintained.

Bacteriological Examination of Ice Lollies:

Six ice lollies were samples for bacteriological examination. These all proved to be of a satisfactory standard of purity.

Bacteriological Examination of Cream:

Five samples of cream were taken and submitted for bacteriological examination. In 3 cases the samples showed evidence of bacterial contamination and a verbal warning was given to the supplier concerned.

Inspection of Meat and Other Foods:

The inspection of human food at slaughterhouses, markets and food shops was carried out with marked efficiency and 1,993 visits were made by the inspectors.

MEAT INSPECTION:

The rate of slaughtering was as follows:—

	CATTLE	CALVES	SHEEP	PIGS	TOTAL
Average Weekly "Kill"	245	13	562	338	1,158
Maximum Weekly "Kill"	344	26	816	605	1,791

The following table shows the number of animals slaughtered and inspected at the private slaughterhouses and the public abattoir:—

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Horses
Number killed	6,281	6,496	658	29,233	17,578	–
Number inspected	6,281	6,496	658	29,233	17,578	–
ALL DISEASES EXCEPT TUBERCULOSIS AND CYSTICERCOSIS: Whole carcases condemned	–	13	14	32	23	–
Carcases of which some part or organ was condemned	964	1,098	–	391	428	–
Percentage of the number inspected affected with disease other than tuberculosis and cysticerci	15·3	17·1	2·3	1·4	2·6	–
TUBERCULOSIS ONLY: Whole carcases condemned	4	76	1	–	5	–
Carcases of which some part or organ was condemned	292	1,144	–	–	277	–
Percentage of the number inspected affected with tuberculosis	4·7	18·7	0·15	–	1·6	–
CYSTICERCOSIS: Carcases of which some part or organ was condemned	41	22	–	–	–	–
Carcases submitted to treatment by refrigeration	41	22	–	–	–	–
Generalised and totally condemned	–	–	–	–	–	–

CYSTICERCUS BOVIS

Sixty-tyree carcases were found to be affected with localised Cysticercus bovis. In all cases the heads and offals were condemned, and the carcases subjected to prolonged refrigeration in accordance with Memo. 3/Meat before being released for human consumption. No case of generalised infection was discovered.

Foodstuffs Condemned

	Tons	Cwts.	Qrs.
Meat (Fresh)	68	18	1
Meat (Tinned)	2	2	1
*Boiled Ham (Tinned)	3	18	3
Tongue and Corned Beef (Tinned)	–	13	–
Fish (Fresh)	–	5	1
Fish (Tinned)	–	7	2
Milk (Tinned)	–	4	3
Poultry and Rabbits	–	5	–
Fresh Fruit and Vegetables	9	5	2
Tinned Fruit and Vegetables	6	12	1
Provisions (Miscellaneous)	1	8	–
TOTAL	94	–	2

*This item includes a single consignment of Yugoslavian canned hams which, on external appearance, appeared to be perfectly sound, but which, on bacteriological examination, was shown to be unfit for human consumption.

Disposal of Condemned Meat:

There were no changes during the year in the method of disposal of condemned meat and offals, which were collected from the public abattoir and private slaughterhouses by 2 private companies, approved by the Corporation. The condemned meat and offals are used for conversion into animal feeding stuffs. Payment for condemned meat and offals is made by the companies concerned direct to the butchers owning the meat. During the year a change in one of the contracting firms was made at the request of the meat traders, the alteration being first approved by the Corporation.

Slaughterhouses:

There were 4 private slaughterhouses licensed for the year 1958, providing facilities additional to the public abattoir. Structural improvements were carried out at all these premises.

On the 1st August, 1958, the new Slaughterhouses Act came into operation and consequently amended certain of the provisions of the Food and Drugs Act, 1955, relating to slaughterhouses and knackers' yards and also amended the Slaughter of Animals Act, 1933 to 1954, and section 151 (1) of the Factories Act, 1937.

The following is a brief summary of the manner in which the main provisions of the Act affect the powers and duties of the Council.

Minimum standards for slaughterhouses will be prescribed covering construction standards for hygiene and the prevention of cruelty to animals.

It is intended that new Regulations shall apply to new slaughterhouses forthwith, and to existing slaughterhouses on dates to be appointed later by the Minister for each local authority district.

It is known that the Minister will require reports to be submitted by each local authority

(*a*) on the existing and probable future requirements of their district for slaughterhouse facilities;

(*b*) the facilities which are or are likely to become available to meet those requirements,

and the deadline before which such reports shall be submitted is normally the 2nd November, 1960.

When the new Regulations are in force, the Council will not be able to grant or renew a licence for a particular slaughterhouse until the premises conform to the prescribed standards.

All slaughterhouses, including their lairages, are now brought within the scope of the Factories Acts, 1937 and 1948, with particular reference to the safety, health and welfare of persons employed in slaughterhouses and knackers' yards.

Slaughterhouse Reports:

The matters which are to receive attention in the reports which have to be submitted include information as to (*a*) which of the slaughterhouses in Bolton already conform to the new standards; (*b*) which do not conform but are expected to by a date yet to be fixed, and (*c*) which slaughterhouses are not expected to conform by that date.

The Minister has given advice in detail as to the preparation of reports nd the particulars to be included.

It is sufficient at this stage in one sentence to say that the public abattoir n its present form would not comply with the new standards. The existing rivate slaughterhouses have certain shortcomings, and decisions will have to e taken by the owners of them as to whether they intend to carry out such orks as are necessary to make the slaughterhouses comply with the new tandards. However, if, as seems possible, the Corporation decide to build new public abattoir, which ought normally to suffice for the slaughtering acilities for at least 3 of the private slaughterhouses, then in the latter such mprovements as are necessary to comply with any new standard would be ept to a minimum. The improvements would, in fact, be such as to cover emporarily the needs of the legislation until the new abattoir was completed. o time has been lost by the Health Committee in referring the question of laughterhouse facilities, and the public abattoir in particular, to the Markets ommittee, and it is safe to say that the Council will probably decide to build new abattoir.

laughter of Animals Acts, 1933-1954:

Fifty-six licences were issued to slaughtermen. No contraventions of he Acts were detected.

iseases of Animals Acts:

oot and Mouth Diseases Order, 1928:

One case of suspected foot and mouth disease occurred during the year. emporary movement restrictions were imposed, but on investigation by the linistry's Veterinary Officers the existence of foot and mouth disease was not onfirmed, and the restrictions were removed.

oot and Mouth Disease (Infected Areas Restrictions) Order, 1938:

During part of February and March, the borough was included in a Foot nd Mouth Disease Infected area. Movement of stock was restricted to animals or immediate slaughter only, and then only on licence. During the period f restriction 175 licences were issued, authorising the movement of 573 cattle, 1 calves, 729 sheep and 918 pigs.

A Horwich farmer was fined £2 for moving 4 calves from his farm to the olton public abattoir during the period of the above restrictions, such move- ent not having been authorised by Movement Licence.

owl Pest Order, 1936:

One case of suspected fowl pest occurred at a farm within the borough, but xistence of the disease was not confirmed by veterinary examination. Move- ent restrictions were imposed on 6 local farmers and poulterers at various imes during the year.

uberculosis Order, 1938:

Four reactors were slaughtered in accordance with the provisions of the rder. One was found to be affected with generalised tuberculosis and was ondemned in its entirety. Several carcases were found to be affected with calised tuberculosis only, and were dealt with in accordance with the pro- isions of Memo. 3/Meat.

ANTHRAX ORDER, 1938:

Three cases of suspected anthrax were investigated during the year (2 pigs, 1 cow). In no case, however, was the existence of anthrax confirmed on bacteriological examination by the Ministry's Veterinary Officers.

SWINE FEVER ORDER, 1938:

A confirmed case of swine fever occurred at a private slaughterhouse within the borough. The carcase was destroyed by incineration at the Back o'th' Bank destructor and appropriate measures were taken at the slaughterhouse.

A case of suspected swine fever occurred at the public abattoir, but the existence of the disease was not confirmed by the Ministry's officers. The carcase was unfit for human consumption and was destroyed at Back o'th' Bank destructor works; routine precautions were observed.

In May, an outbreak of suspected swine fever occurred at a local piggery, the existence of the disease being confirmed by the veterinary staff of the Ministry of Agriculture, Fisheries and Food. Forty pigs died from swine fever and the carcases were destroyed by incineration. Movement restrictions were imposed and remained in force until early September, 1958.

WARBLE FLY (DRESSING OF CATTLE) ORDER, 1948:

Suitable publicity was given to the requirements of the Order during the period March to June, posters being exhibited at markets, libraries, police stations, etc. No animals affected with warbles were detected.

GENERAL:

It will be appreciated that the work involved in the administration of the Diseases of Animals Acts is intricate, and during outbreaks of foot and mouth disease takes up much of the time of the Public Health Inspectors. It would be quite impossible effectively to cover the legislation without the assistance of the Chief Constable, as control of personnel entering and leaving infected premises necessitates continuous watch night and day. Therefore, as is the practice in most local authorities throughout the country, it might be worth while considering whether the police in Bolton should take over these duties.

Food and Drugs Sampling for Chemical Examination:

The following samples of foods and drugs were submitted to the Borough Analyst:—

	GENUINE	UNSATISFACTORY	TOTAL
Food Samples:			
Formal...	20	4	24
Informal	362	36	398
Drug Samples:			
Formal...	–	–	–
Informal	35	2	37
Milk Samples:			
Formal...	481	7	488
Informal	279	4	283
TOTALS	1,177	53	1,230

The majority of informal milk samples were those bought for the purpose f the Special Designation Regulations.

Full details of the above samples are given in Tables 21 and 22 on pages 57 and 158.

Action in respect of unsatisfactory milk samples is reported on pages 19 and 120.

In other cases, action consisted of the surrender and destruction of unatisfactory samples, or warnings to the vendors or manufacturers of the rticles in question.

ood Hygiene:

During the year enforcement of the notices served under the Food Hygiene egulations, 1955, continued and details of the visits made, etc., are given in able 3 on page 142. This routine work resulted in very considerable improvements being effected in the town's food premises, as shown below.

Structural improvements:	
Floors	472
Walls, ceilings	522
Doors, windows	184
Decorations	455
Lighting	139
Ventilation	78
Drainage	5
Fittings, equipment, etc.:	
Sinks, etc.	112
Wash hand basins, etc.	355
Water supplies—cold	304
„ „ —hot	432
Shop fittings, equipment, etc.	548
Miscellaneous improvements	305

Foreign Bodies" in Food:

There were 11 complaints regarding foreign objects in food and drugs :—

Malt loaves (2) containing jute fibres on the surfaces." It was thought that ese had been transferred to the loaves from pieces of sacking which are used many bakers when handling warm loaves. On enquiries being made at the kery this appeared to be substantiated and the manager agreed to provide oper asbestos gloves.

Tin of grapefruit segments containing a small insect." Further samples were ken from the same consignment, but all were free from foreign objects.

Steak pudding containing a wire staple." Enquiries were made at various emises and a caution was given to the owner of the bakehouse at which it was nsidered the incident had originated.

Bottle of pills containing an insect." These had been purchased as a prescripon. The insect was identified as a golden spider beetle (Niptus hololeucus). he chemist's shop in question was clean and free from any sign of infestation. he insect could have entered the empty bottle at any stage in transit. The hemist replaced and destroyed the pills.

"Fish and peas containing an earwig." The insect was probably contained in the sack of peas. The sample was purchased by a minor whose parents were unwilling for her to act as a witness in Court proceedings. The vendor was accordingly cautioned.

"Bandage in butter." This complaint referred to a used bandage found in a packet of butter. As the local vendor could not possibly have been responsible, legal proceedings were taken against the packers whose premises were situated outside the borough. The defendants, however, were able to satisfy the Bench that they had used all due diligence and they were acquitted.

"Bottle of milk contaminated by odour." The farmer concerned was interviewed, but as there had been no other complaints in the same period, no definite conclusion was reached, other than the possibility of contamination of the empty bottle by fly spray or excess hypochlorite from the washing process.

"Chocolate crunch containing piece of plastic." The plastic was part of a "spinner" from a packet of breakfast cereals used by the confectioner in the preparation of the chocolate crunch. Legal proceedings were taken, the vendor being fined £5.

"Brown loaf containing a pair of eyebrow tweezers." The bread was baked outside the borough boundary. Legal proceedings were taken against the firm, who were fined £5.

"Bottle of mineral water containing piece of glass." The manufacturers' premises were inspected, but the possibility of broken glass entering bottles during the filling process appeared remote. It was felt that all possible precautions were being taken and these were, if anything, strengthened as a result of the incident.

"Boiled ham sandwich containing 'grey matter'." The Analyst's report showed the material complained of consisted of nothing other than animal fat, the alleged contamination being of no consequence.

"Steamed pudding and custard containing black particle." The complainant produced the black particle after dining in a restaurant. The Analyst's report showed that it was a burnt starch particle of no hygienic significance.

Frozen Liquid Egg:

At the request of the Ministry of Health, the department co-operated in an investigation into the bacteriological condition of home produced liquid whole egg and for this purpose samples were taken over a period of several weeks at a local egg packing station. One of the samples was found to contain Salmonella typhi-murium and the offending container was traced and its contents destroyed. The results of the samples have been notified to the Ministry of Health.

Imported Foodstuffs:

Reference was made in the annual report for 1957 to the concern of the Health Committee over the large number of samples of imported foodstuffs found to contain living or dead insects, insect fragments, rodent hairs, etc. Routine random samples of foodstuffs subjected to special examinations for this kind of contamination had shown that a high proportion of samples of such products as imported cereals, nuts, etc., were contaminated. In consequence,

selective sampling of such commodities was commenced with a view to ascertaining the degree and extent of contamination and to determine, if possible, the point at which contamination occurred. These samples indicated that approximately half the foodstuffs examined contained insect or rodent contamination in some form and in many cases the circumstances clearly indicated that contamination had occurred prior to the foodstuffs being landed in this country.

In July, 1957, a preliminary report was made to the Health Committee, following which a letter was sent by the Council to the Ministry of Agriculture, Fisheries and Food who, in due course, referred the matter to the Ministry of Health. After an appreciable delay, a reply was received from the Ministry of Health to the effect that there might be considerable difficulties in increasing the control of imported foodstuffs at the ports, and promising to write again in due course.

No further communication was received until July, 1958, i.e., approximately a year since the matter was first referred to the Ministry. Briefly, the Ministry's reply expressed satisfaction with the existing methods of control at the ports; pointed out certain practical difficulties (which were already known to the department); and suggested that the Corporation's best remedy was by prosecution of traders found to be selling contaminated foodstuffs.

The reply was considered by the Health Committee who expressed strong dissatisfaction with the Ministry's attitude. It was decided that the Ministry should be informed accordingly; that representations should be made to the Association of Municipal Corporations and that the attention of the two members of Parliament for the borough should be drawn to the present unsatisfactory position. A question was subsequently asked by one of the two members in the House of Commons, but evoked a reply similar in terms to that already given.

At a later date the Ministry of Health suggested that the best way of dealing with the matter would be by way of a joint discussion between representatives of Bolton Corporation and the Ministries of Health, and Agriculture, Fisheries and Food, respectively. This meeting took place in late October, 1958, Bolton Corporation being represented by the Medical Officer of Health, Borough Analyst and Chief Public Health Inspector (the Senior Assistant Solicitor who was to have formed part of the deputation was unable to be present due to illness). The problem was discussed from various angles and it was clear that the Ministry officials were not complacent about the existing arrangements at the ports, but did not feel that any further stringent action on their part was practicable. They were, in fact, unwilling to circularise local authorities on the subject, or even the port health authorities alone, and the most that could be obtained was a promise to bring this problem to the notice of the Association of Medical Officers of Port Health Authorities at some convenient time in the future. It was again pointed out that there was nothing to stop local authorities prosecuting offending traders, to which it was pointed out by the Corporation's representatives that such prosecutions although legally possible were not morally justified if the foodstuffs were contaminated prior to delivery to the trader.

It has emerged quite clearly from the correspondence and personal discussions with the Ministry officials that Bolton is probably the only local authority at the present time exerting any appreciable pressure with a view to bringing about improvements. Consequently, a circular was sent out during

the year to the Medical Officers of Health of most of the Port Authorities and Food and Drugs Authorities, requesting information as to the extent of their own sampling operations and the results revealed by those operations. Replies were received from over 180 authorities. The replies proved to be difficult to summarise, but they indicated that in the great majority of areas very little sampling or testing is carried out with a view to detecting food contamination of this type and in the few cases where experiences comparable to Bolton's were mentioned, these were obviously special cases. It is interesting to note, however, that an appreciable number of local authorities stated that in future more attention would be given to the selective sampling of imported foodstuffs likely to be contaminated; by way of illustration the most recent report from another authority comparable in character to Bolton has shown that when selective sampling is carried out on a sufficiently wide basis, widespread contamination will be detected—in this case the percentage of samples found to be contaminated was, in fact, the same as that found in Bolton in the early stages of the investigation.

In view of the difficulties experienced at Ministry level, it is pleasing to report that local food traders, as a result of the department's activities, have now become so conscious of this type of contamination that they are now insisting on the vulnerable foodstuffs being cleansed before supply. In consequence, the number of samples found to be contaminated has dropped from approximately 50 per cent. in 1957, to approximately 35 per cent. in 1958.

GENERAL SANITATION

Conversion of Waste Water Closets:

In the Annual Report for 1957 it was estimated that the number of waste water closets still remaining in the borough is between 5,000 and 6,000. During 1958 the Corporation's grant towards waste water closet conversion was increased from £8 to £10 and during the year 400 grants were offered to owners. By the end of December, 1958, 340 grants had been paid. The average cost of conversion (excluding cases where fittings of a highly superior nature have been installed) would appear to be about £30.

Provision of Dustbins:

The problems concerning the provision and renewal of dustbins were dealt with by a special Sub-Committee of the Health Committee. Details were obtained verbally from the tenants and opportunities were given to the owners to submit their own observations, in writing, although few, in fact, did so. On the basis of the information obtained the Sub-Committee recommended, by a separate decision in each case, as to whether the notice should be served on the owner or the occupier as the case may be. Where the statutory notices were not complied with, bins were provided by the Corporation in default.

Public Water Supplies:

All employees of the Waterworks Department who undertake duties directly concerned with the water supply submit one specimen of faeces annually for bacteriological examination. New employees submit a specimen on 3 successive days and a specimen of blood is obtained for a Widal test. A total of 41 stool specimens and 5 blood specimens were examined during the year, but no evidence of typhoid, salmonella or dysentery infection was found in any of the specimens examined.

Mr. H. R. Davenport, Waterworks Engineer and Manager, has supplied the following information:—

"The water supply of the area and of its several parts was satisfactory both as regards quality and quantity.

The water supply of the area is filtered at five filter stations. Normally samples of both raw and filtered water are subjected to full bacteriological examinations each week and to full chemical analysis every three months by the Borough Analyst. Special examinations and analyses are made as circumstances require.

During 1958, 250 samples of raw and 257 samples of filtered water received bacteriological examination, and 20 samples of both raw and filtered water received chemical analysis. In addition 50 samples of water from the supply of the Manchester Haweswater Undertaking were examined and the results showed that the filtered and treated water was of excellent quality, B.Coli being absent in 96.74% of the potable water samples tested. Where 100% bacteriological purity was not obtained, in all but one case, the second sample taken immediately proved to be satisfactory.

From tests made weekly, the final water was shown to have no significant plumbo-solvent action.

No action was required to be taken in respect of any form of contamination.

The public water mains afforded a direct supply to a population of approximately 162,900 and 56,564 dwelling-houses—no supply was afforded to dwelling-houses by standpipes.

The information supplied is in respect of the County Borough of Bolton, although the Undertaking's area of direct supply includes adjoining local authorities."

Sewage Disposal:

The following information has been supplied by Mr. F. W. Allen, Manager, Bolton and District Joint Sewerage Board:—

"During 1958, the sewage treatment plant at Hacken dealt with a total flow of 4,451 million gallons. This represents an average of 12.20 million gallons per day. Six million gallons of this daily flow was given full treatment by the activated sludge process followed by high-rate biological filtration. Tests made on the effluents from these processes showed that out of 214 tests made, 209 were satisfactory. Of the 6.20 million gallons per day which could not be given full treatment, only 107 samples were satisfactory out of 217 examined. The Bolton and District Joint Sewerage Board approved conditions for regulating the nature and quantity of trade effluent discharged from one works into the Bolton sewers.

The Bolton and District Joint Sewerage Board has seconded labour to the Farnworth Council for screening the sewage diverted to the Doe Hey Brook in consequence of the collapse of the Fylde Street sewer in September, 1957. Samples taken by officials of the Public Health Department from the Doe Hey Brook as it passes through the Borough of Bolton have been analysed in the Board's laboratory."

Factories Act, 1937:

There are 1,079 factories within the borough, which were the subject of 785 inspections, resulting in 84 cases in the service of written notices upon the factory occupiers. Full details of the work carried out under the Factories Act, 1937, are contained in Tables 23 to 26 on pages 159 and 160.

Shops Act, 1950:

There are 998 shops within the borough subject to the provisions of this legislation. During the year 602 routine inspections were made, and 52 verbal or written notices issued. Sixty-eight improvements were effected as a result.

Houses-let-in-Lodgings and Common Lodging Houses:

There were 213 known lodging houses within the borough, and 391 visits and inspections were made.

There are 2 common lodging houses in the town, i.e., in St. George's Road and Crompton Street respectively. Both premises are operated by the Salvation Army; in the case of the St. George's Road premises the Salvation Army both own and manage the property, while in the case of the Crompton Street hostel, the premises are owned by the Corporation and leased to the Salvation Army for management purposes.

Offensive Trades:

There were 12 offensive trades within the borough, i.e.,

1 Fellmonger
1 Gut-scraper
1 Fellmonger and gut-scraper
1 Fat melter
1 Tripe boiler
7 Rag and bone dealers

There were no byelaws in force for the regulation of these trades, but the comparatively small number of premises involved, and the satisfactory standard of cleanliness and general maintenance obtaining, does not justify the making of special byelaws.

Hairdressing Establishments:

There were 269 hairdressing premises registered in accordance with the Bolton Corporation Act, 1949, section 48. Two hundred and seventy-nine inspections were made, but no serious contraventions were found and generally the premises were found to be satisfactorily conducted.

Pharmacy and Poisons Act, 1933—The Poisons Rules, 1952:

The local authority's list of persons entitled to sell poisons included in Part II of the Poisons List comprised 149 names. The storage and handling of poisons has improved appreciably following the special survey carried out during the previous year.

Pet Animals Act, 1951:

Ten pet shops were licensed under the Act, and 19 inspections were made. A satisfactory standard has been maintained in the licensed establishments, but where necessary verbal advice was given as to the requirements of the Act.

Rag Flock and Other Filling Materials Act, 1951:
Rag Flock and Other Filling Materials Regulations, 1951-1954:

This legislation prescribes standards of cleanliness for filling materials used in upholstered articles and stuffed toys and the local authority are required to register premises where the relevant operations are carried out. There were 17 premises in the borough registered under the Act.

Washed Rags:

Seven certificates as to the bacteriological cleanliness of washed rags for the export trade were issued to a local firm.

Fylde Street Disaster:

During the year, constant attention was given to the diversion channel which was constructed to enable the reconstruction of the collapsed Fylde Street sewer to be carried out. Special attention was paid to such matters as the strutting supporting the sides of the diversion channel (which tended rapidly to become fouled), the screens and cascade, etc., and any matters found to require attention were notified to the appropriate authorities. In addition, samples were taken for the purpose of checking the efficiency of chlorination of both the sewage passing through the diversion channel and also of the public water supplies within the Fylde Street area. Samples were also taken of both sewage and of public water supplies for bacteriological examination. Regular surveillance of the district was also carried out by the rodent control staff, both along the course of the diversion channel and the Doe Hey Brook and within the disaster area itself.

During the year, the Consultants' reports as to the causes of the disaster were issued and are, of course, properly the subject of comment by the Borough Engineer. Publication of the report did, however, enable the reconstruction of the collapsed sewer to be commenced and work is still in progress.

DISINFECTION AND DISINFESTATION

Disinfection:

Terminal disinfection of premises as a routine measure following cases of infectious disease has been discontinued for several years, except in special cases only; where such work has been carried out on public health grounds, the work was carried out free of charge. Details of the work done are given in Table 27 on page 161.

In readiness for immediate use in the event of smallpox occurring, a special stock of formaldehyde and a mixture of carbolic soap, water and white cyllin is retained at School Hill Disinfecting Centre; a blowlamp suitable for the flaming of metal surfaces on vehicles, etc., is also held in reserve for this type of emergency, and containers for enclosing infected mattresses and linen are to be obtained.

Disinfestation:

The Corporation's pest control service continued to make speady progress, and many occupiers of food or other business premises, where there are special risks of infestation, continue to enter into annual agreements with the Corporation for regular treatment of their premises with a view to preventing insect contamination of foodstuffs; in many cases the agreements also provide for preventive treatments against rodent infestations. The income for destruction of insects and rodent pests has now risen to £2,586 11s. 10d. per annum. The work done is summarised in Tables 28 and 29 on pages 161 and 162.

With a view to controlling the rat population in the sewers, regular destruction treatments are carried out, the work being done by the Borough Engineer's Department in collaboration with the Health Department. The poison used is mainly Warfarin, but occasionally zinc phosphide or arsenious oxide are used, paranitrophenol being incorporated in many cases to inhibit mould growth.

Mr. A. Hazelwood, Curator of Museums, has supplied the following information:—

> "The insect and similar pests brought into the Museum for identification have followed the usual pattern. The Golden Spider Beetle, that harmless colonial immigrant, continues to cause some alarm and consternation when it turns up, as it will from time to time, in the cleanest of houses. One aggravated source of trouble is the number of small beetles which are apt to be found in the upper rooms of houses. Many of these are vegetarian or scavenging in habit and have their origins in birds' nests in the roof-spaces. As human dwellings encroach into the country some birds are becoming increasingly suburban in habit and take advantage of a human roof as shelter for their nests which serve not only as cradles for their young but also as food supplies for a variety of insects which lay their eggs in decaying vegetable matter.

Another insect pest which is becoming more evident year by year is a relative of the Clothes-Moth which feeds on a great variety of stored foods, including tobacco, chocolates and cereals. The fully-fed larvae wander into a queer assortment of places and one, with the urge for seclusion rather than medication, was discovered within a box of stomach powder. Although this pest responds to most insecticides, there is one stage in its development when it is indifferent to any hostile action and its control is therefore difficult. One wonders, however, if there is much difference between those chocolated insects which are offered as a tinned delicacy and those which are occasionally sold by accident."

EQUIPMENT:

The equipment at the School Hill Disinfecting Centre includes a steam disinfector which can be used for the disinfection and/or disinfestation of infected articles; there is also a hot air cabinet which can be used for the rapid disinfestation of clothing of persons being treated for personal infestation in the medical baths, so that their clothing can be treated while they are being bathed themselves.

Mortuary:

The mortuary at School Hill forms part of the premises used as a Disinfection and Disinfestation Depot. An attendant was employed on combined mortuary duties and disinfestation work.

One hundred and one bodies were received during the year. Post-mortem examinations were carried out on 81, all of them coroner's cases.

Municipal Medical Baths:

The cleansing of verminous persons was carried out at the medical baths which is an annexe to the School Hill Depot. The work was done by a part-time female attendant and by the foreman of the Depot.

A summary of the cases dealt with is given below:—

	School children		Children under five		Adults	
	Males	Females	Males	Females	Males	Females
Head infestations	47	175	7	7	–	11
Scabies	22	13	2	4	7	9
Body Lice	–	–	–	–	23	1
TOTALS ..	69	188	9	11	30	21

REPORT OF THE BOROUGH ANALYST

The total number of samples examined in the laboratories during the year was 6,774.

This represents an appreciable increase over the previous year and follows a gradual increase during the past 10 years. The special investigation on Atmospheric Pollution is mainly responsible for this year's increase, and details of this work will be found later in this report. In consequence of the extra work, the necessity for an extension of the laboratory accommodation has become essential and is, in fact, expected to become available in the near future.

The number of food and drugs examined was slightly higher than in the previous year, and the proportion classified as unsatisfactory was lower at 4.3 per cent. The number of cereals found to be infested with rodent excreta, insects, or mites is still very disturbing and after much correspondence, a meeting was arranged to discuss the question of infestation with representatives of the Ministry of Agriculture, Fisheries and Food, and the Ministry of Health.

It is almost 100 years since the first Adulteration of Foods and Drinks Act was passed, and much has been achieved in eliminating the crude adulteration of food which then prevailed. As a result of modern methods of manufacture and recent legislation, the analysis of foods and drugs has become more highly specialised. The purchase of expensive equipment is essential, and this could be particularly emphasised as the necessity arises for the examination of food and water for the presence of radio-active elements.

The chemical and bacteriological examination of the waters constituting the whole of the domestic supply to the town and district are carried out in this laboratory, together with special investigations of a chemical nature. For this service the Waterworks Committee contribute a proportion of the expenses of the laboratory.

Miscellaneous examinations and investigations of complaints from the general public are carried out with the close co-operation of the Public Health Inspectors; and the services of the laboratory are also utilised by other Departments of the Corporation and adjacent Local Authorities.

The samples submitted are classified as follows:—

For the Health Committee:		
Food and Drugs	1,230	
Designated Milks	484	
Ice Creams, etc. (for bacteriological examination)	84	
Rinses from dairy utensils, etc.	26	
Waters from domestic premises	316	
Sewage effluents	207	
Swimming-bath waters	111	
Fertilisers and Feeding Stuffs	24	
Atmospheric pollution samples	2,931	
Miscellaneous examinations	113	
		5,526
For the Waterworks Committee		1,160
For other Departments, Authorities, etc.		88
		6,774

The following table shows by comparison, the increase in the number of samples examined during the past 10 years:

	1949	1950	1951	1952	1953	1954	1955	1956	1957	**1958**
Total No. of all	2,251	2,577	3,831	4,010	4,444	4,334	4,256	4,348	4,977	**6,774**
No. of Food and Drug samples	830	835	1,071	1,078	1,145	1,120	1,183	1,233	1,206	**1,230**

Food and Drug Samples:

Exercising their powers under the above Act, the Minister of Agriculture, Fisheries and Food and the Minister of Health have made the following Regulations during the year 1958:

Labelling of Food (Amendment) Regulations, 1958:

These regulations remove the requirement that no liquor shall be labelled as a cocktail, or as a mixture containing spirits, unless it contains not less than 40 per cent. proof spirit. However, such liquors still must be labelled with a declaration of alcohol content.

Public Health (Preservatives, etc., in Food) (Amendment and Amendment No. 2) Regulations, 1958:

Permit the sale and importation of citrus fruits which contain diphenyl or ortho-phenyl phenol (or mixtures); and ortho-phenyl phenol in apples, pears, pineapples, peaches and melons.

Antioxidant in Food Regulations, 1958:

Prescribe the amount of certain antioxidants which may be added to edible oils and fats (whether hardened or not); butter for manufacturing purposes; and essential oils.

The Ministers also issued a Circular recommending limits for the copper content of foods, but considered it was unnecessary to give statutory effect to the recommendations.

A further Circular cancelled the request for returns including particulars of the meat content and price of sausage samples examined by Public Analysts.

There has been a new edition of the British Pharmacopoeia which became official on the 1st September, 1958. One feature of the new edition is a further increase in the number of synthetic chemicals. The spectrophotometer will again prove useful in the identification and quantitative determination of these compounds.

During the year under review, the number of samples submitted for analysis under the Food and Drugs Act was 1,230, equivalent to a sampling rate of 7.5 per 1,000 of population.

Fifty-three of these samples were reported as adulterated or otherwise unsatisfactory; the percentage (4.3%) being lower than the corresponding figure for the past two years.

Particulars of the foods and drugs examined, and of the unsatisfactory samples are given in Tables 21 and 22 on pages 157 and 158.

Milk Samples:

The presumptive legal standard for the composition of milk is not less than 3.0 per cent of fat and not less than 8.5 per cent of non-fatty solids. However, milk below these standards is still considered to be genuine if it can be proved to have been sold "as it came from the cow", and although of poor quality such milk is not classified as adulterated.

As a further safeguard for the milk producer, it is customary to take "Appeal to Cow" samples from milks which are low in fat, and to determine the freezing point of milks which are low in non-fatty solids.

From a total of 771 samples of milk examined during the year, 11 samples were reported as adulterated. Seven other samples were low in non-fatty solids, but the freezing point test showed them to be free from added water and of naturally poor quality.

The following table shows the average chemical composition of the milks examined during each quarter of the year, and the average for the year:—

	No. of Samples	Fat %	Non-fatty Solids %	Water %
1st Quarter, 1958	214	3.66	8.81	87.53
2nd Quarter, 1958	204	3.75	8.88	87.37
3rd Quarter, 1958	185	3.93	8.88	87.19
4th Quarter, 1958	168	3.98	8.85	87.17
For the year, 1958	771	3.82	8.85	87.33

Designated Milks:

Pasteurised and Tuberculin Tested Pasteurised Milks are subjected to a phosphatase test and to a methylene blue test. The former is a means of checking the adequacy of the heat treatment process, and the latter indicates the keeping quality of the milk.

Sterilised milks are subjected to a turbidity test and as this class of milk is heated to a higher temperature, a different technique is involved in checking the efficiency of the process.

Examination of Designated Milks

Designation	No. Examined	Satis-factory	Failed meth. blue test	Failed phos. test	Failed meth. blue and phos. tests	Failed turbidity test	Test void
Pasteurised	185	180	0	5	0	–	0
T.T. Pasteurised..	121	120	0	0	0	–	1
Sterilised	178	177	–	–	–	0	–
Totals ..	484	477	0	5	0	0	1

(The test is declared void if the atmospheric shade temperature exceeds 65° F.).

The above Pasteurised Milks included 64 samples from local schools.

One sample of Sterilised Milk contained 2.8% of added water.

Ice Cream Samples:

It is anticipated that, in the near future, there will be new regulations for the chemical composition of ice cream; but the purity from a bacteriological standpoint is still assessed by means of the methylene blue test.

This is an indirect method of estimating the number of organisms present, since a large number of organisms would decolourise the methylene blue solution in a relatively short period of time.

Conditions of applying the test are prescribed, and the samples are graded 1 to 4 according to the time taken for decolourising the blue solution. Only those samples of grades 1 or 2 standards are classified as satisfactory.

More attention is paid to the sampling of loose ice cream, since it is more liable to the possibility of contamination. Details of samples taken are given in Table 20 on page 156.

Domestic Water Supplies:

In addition to the samples examined for the Waterworks Department, samples from private supplies to farms have been examined, and complaints from consumers investigated.

Swimming Bath Waters:

Samples were obtained on 111 occasions from the plunges at the swimming baths under the control of the Health Committee and examined for chlorine content, pH value and bacteriological purity.

All the samples were free from organisms of intestinal origin, and indeed were of the same high standard of purity as the drinking water supply.

Fertilisers and Feeding Stuffs:

Twenty-four samples were submitted for analysis, and 19 of the samples complied with the Fertilisers and Feeding Stuffs Regulations, within the prescribed limits of variation.

Two Fertilisers did not state the amount of Phosphoric Acid soluble in water, or in citric acid; 1 was deficient in water soluble Phosphoric Acid and contained an excess of water insoluble Phosphoric Acid and an excess of Potash; and 1 sample contained an excess of total Phosphoric Acid.

One Feeding Stuff was deficient in oil compared with the Warranty.

Atmospheric Pollution:

There has been a large extension of the investigations into the amount of pollution in the atmosphere surrounding Bolton during the past year.

The routine determinations by means of deposit gauges and lead peroxide instruments have been continued, and the gradual decline in the amount of deposit expressed as an average of all districts still continues.

Since 1954, when a smokeless zone was established in the centre of the town, the total deposit collected in the gauges has fallen from nearly 24 tons per square mile, to less than 15 tons per square mile in 1958.

Deposit Gauges:

	Average total monthly deposit in tons per square mile									
	1949	1950	1951	1952	1953	1954	1955	1956	1957	**1958**
Average of six districts	21.2	23.7	23.5	21.4	21.5	23.8	18.7	18.4	15.1	**14.8**

The research carried out on air pollution with particular reference to air pollutants likely to be of significance in the incidence of certain respiratory diseases is the subject of a special report. (See Appendix)

Miscellaneous Examinations:

For the Health Committee:

Foreign matter in Food

In addition to the samples submitted by Inspectors under the Food and Drugs Act, a number of foods have been examined to investigate complaints by the general public or as a result of enquiries carried out by the Public Health Inspectors.

These included:

Bread containing insects; tin of pears containing a field cricket; ginger beer containing a liquorice sweet; wrapping paper with an insect larva; sweets containing ebony wood; malt loaf with jute fibres; brown bread with a mould growth; tin of grape fruit containing 2 beetles; flour with insects, larvae and webbing; portion of bread with insect larva; mixed dried fruit with insect larva; and 7 bottles of drugs from a pharmacy contaminated with mites which were traced to a packet of bone meal.

Complaints were also received of a custard pie, ham sandwich and a portion of sponge cake and custard, but these were examined with negative results.

Other miscellaneous samples examined included:

Rinses from milk bottles, dairy utensils, etc., washed rags (for export), prunes, milk (not heat treated), dried milk, washing soda, disinfectants, orange juice, tinned oranges, corned beef, soaps, cleansers and thinners, tea cosies (filling contaminated), cooked fish, solvents for recovery, washing from fertiliser plant, foliage containing metallic deposits, glucose, luncheon meats, waters re atmospheric pollution, dusts from shops and warehouses, butters for rancidity, detergent, ham, apricot puree, sherry, toy with luminous paint (not radio active), soft drinks (re food poisoning).

For the Education Committee and Bolton School:	29	swimming bath waters
For the Housing Committee:	1	wallpaper
For the Highways Committee:	2	waters
For Atherton U.D.C.:	46	atmospheric pollution samples
	3	waters
	1	tin of strawberries
Private Sources:	1	feeding stuff
	2	compound aspirin tablets
	1	vitaminised iron tonic tablets
	1	rolled oats
	1	bread loaf

Sampling for the Waterworks Committee:

Samples of the water supplied to the town and district are examined frequently in these laboratories, and during the year under review, a total of 1,160 samples were examined and reports thereon issued to the Waterworks Engineer and Manager.

The results have shown that the treatment of the water at the various sources has been effective in producing water of a highly satisfactory standard of purity.

ENVIRONMENTAL HYGIENE—STATISTICAL TABLES

TABLE 1

Complaints:

The following complaints were received and investigated.

Housing defects	1,345
Choked and defective drains	384
Accumulations of offensive matter	91
Relative to unsound food	225
Verminous premises:—	
(*a*) Bed bugs	8
(*b*) Rat and mouse infestations	492
(*c*) Cockroaches and other insect pests ...	22
Keeping of animals and poultry	4
Miscellaneous	366
Total Complaints	2,937

TABLE 2

Standing Commitments:

Premises Subject to Routine Inspection

Type of Establishment	No. of Premises
Common lodging houses	2
Houses-let-in-lodgings	211
Movable dwellings	38
Bakehouses	375
Basement bakehouses	5
Fish friers	208
Registered premises, Sec. 16 Food and Drugs Act, 1955	957
Industrial canteens	105
Other catering establishments	95
Miscellaneous food preparing premises	82
Ice cream premises—manufacture	35
,, ,, ,, —sale only	692
Meat shops	220
Slaughterhouses	5
Dairies	11
Milk shops	708
Food shops	1,400
Licensed premises (On-)	316
,, ,, (Off-)	126
Food stalls	150
Vehicles—Meat	15
,, —Milk	160
Factories (Mechanical)	928
,, (Non-mechanical)	116
Shops	998
Outworkers' premises	26
Factory chimneys	210
Hairdressers' premises	272
Places of entertainment	44
Clubs	39
Offensive trades	12
Registered premises, Rag Flock and Other Filling Materials Regulations, 1951 and 1954	18
Pet shops (Pet Animals Act, 1951)	10

TABLE 3

Detection of Sanitary Defects:

Summary of Visits and Inspections

Nature of Visit	No. of Visits
Dwelling-houses for housing defects under Public Health Act:—	
After complaint	2,090
Subsequent visits	6,443
Dwelling-houses under Housing Acts:—	
Detailed inspections	607
Re-inspections, re-visits	3,267
Certificates of Disrepair	347
Infected dwelling-houses:—	
After notified infectious disease (other than tuberculosis)	389
Contacts	212
Schools and church halls	124
Swimming baths	21
Water sampling:—	
Swimming baths	21
Dwelling-houses	3
Business premises	978
Cinemas, dance halls, billiards halls	65
Offensive trade premises	8
Stables, piggeries, keeping of animals	99
Houses-let-in-lodgings	391
Factories Acts, 1937 and 1948:—	
Factories with mechanical power	1,005
Factories without mechanical power	186
Outworkers' premises	31
Common lodging houses	6
Underground rooms	3
Hairdressing premises	279
Tents, vans, sheds	69
Smoke abatement:—	
Boiler house surveys	4
re Prior Approval applications	13
re Smokeless Zones	960
Smoke observations	367
Smoke investigations	52
Re-visits	78
Combustion readings	30
Deposit gauge visits	291
Volumetric stations	2,293
Fairgrounds	175
Drainage:—	
Conversion from waste water to water carriage system	784
Miscellaneous tests and inspections	846

Nature of Visit	No. of Visits
Public sewers	73
Watercourses and ditches	3
Land and tips	144
Septic tanks and cesspools	13
Sanitary conveniences—including public houses	146
Miscellaneous visits	2,894
Visits not inspections	464
Verminous premises:—	
Rats and mice:—After complaint or from survey	840
Subsequent and survey visits	9,430
Bug infestations:—No. of premises visited	54
No. of premises where definite infestation existed	44
Cockroaches	366
Other vermin	37
Inspections for supervision of food:—	
Unfit foodstuffs other than meat	724
Slaughterhouses and cold stores	1,993
Butchers' shops (Public Health (Meat) Regulations, 1924-1952 and Food Hygiene Regulations, 1955)	380
Food Hygiene Regulations, 1955:—	
Bakehouses	889
Fish shops, grocers and greengrocers	3,595
Factory canteens	218
Restaurant kitchens, fish friers, etc.	567
Hotel and beerhouse bars and cellars:—	
Day inspections	937
Night inspections	41
Food and Drugs Act, 1955—Section 16:—	
Ice cream premises (Heat Treatment Regs. 1947-1952)	90
Sausage manufacturers	2
Preserved meat preparation premises	27
Preserved fish preparation premises	73
Milk and Dairies Regulations, 1949: Food and Drugs Act, 1955—Section 91:—	
Milk sampling for bacteriological examination	203
Contraventions of Milk and Dairies Regulations	5
Dairies	105
Shops Act, 1950—Section 38	602
National Assistance Act, 1948—Section 47	—
Diseases of Animals Acts and Orders	54

TABLE 4

Notices Served:

Action taken to secure abatement of nuisances and to enforce the appropriate statutory enactments was taken as follows:—

Nature of Notice	Public Health Act 1936	Food Hygiene Regulations 1955	Factories Acts 1937 and 1948	Byelaws: Hairdressers and Miscellaneous Premises
No. of informal notices served	950	405	109	81
No. of informal notices complied with without recourse to statutory action	421	720	83	61
No. of statutory notices served	905	–	–	–
No. of premises concerned..	742	–	–	–
No. of statutory notices complied with..	842	–	–	–
No. of premises concerned..	687	–	–	–
No. of cautionary letters sent by Town Clerk	418	–	–	–

Outstanding notices from previous year are included.

TABLE 5

Housing Defects and Legal Proceedings:

A summary of general housing defects or disrepair of property where it was necessary to take legal proceedings, and the result of such proceedings, is given below:—

Case No.	Statute	Details of Contravention	Result
1	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective eavesgutter	Nuisance Order made and costs awarded to the Corporation
2	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against owner
3	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against agents
4	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of penetrating dampness and perished wall plaster	Nuisance Order made against agents
5	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of leaking roof and defective plaster	Nuisance Order made against owner and costs of 10/6d imposed
6	Public Health Act, 1936 – Sections 45 and 93	Failure to comply with abatement and statutory notices in respect of defective chimney flue and water closet compartment door	Nuisance Order made against owner and fine and costs of £2/10/6 imposed.
7	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against agents and costs of 10/6 imposed
8	Public Health Act, 1936 – Section 93; Housing Repairs & Rents Act, 1954	Failure to comply with abatement notice in respect of general defects and statutory notice in respect of water supply, cooking facilities and sanitary conveniences.	Nuisance Order made against owner and fine of 10/- imposed
9	Public Health Act, 1936 – Section 95; Housing Repairs & Rents Act, 1954	Failure to comply with Nuisance Order and statutory notice	£1 fine imposed plus 6d per day for 86 days
10	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of defective pointing and scullery floor	Nuisance Order made against agent and costs of 10/-d imposed
11	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against agents and costs of 9/6d imposed
12	Public Health Act, 1936 – Section 95	Failure to comply with Nuisance Order	£2 fine imposed
13	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of defective roof and chimney stack	Nuisance Order made against owner and costs of 10/6d imposed
14	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of general defects and defective rainwater pipe and eavesgutter	Nuisance Order made against owner and fine and costs of £1/10/6 imposed.

Case No.	Statute	Details of Contravention	Result
15	Public Health Act, 1936 – Sections 39 and 93	Failure to comply with abatement and statutory notices in respect of defective windows and insanitary sink	Nuisance Order made against owner and fine and costs of £2 imposed
16	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against owners
17	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made and costs awarded to the Corporation
18	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of defective plaster and roof	Nuisance Order made and costs awarded to the Corporation
19	Public Health Act, 1936 – Section 39	Failure to comply with statutory notice in respect of defective eavesgutter	Fine and witness's expenses of £2/15/- imposed
20	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made and costs awarded to the Corporation
21	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made and costs awarded to the Corporation
22	Public Health Act, 1936 – Section 93	Failure to comply with abatement notice in respect of general defects	Nuisance Order made against owner and costs of £1/3/- imposed

In addition, 92 summonses were issued but withdrawn due to the works having been completed before the dates of the hearings.

TABLE 6

Sanitary Improvements Effected:

Action was taken under either the Public Health Act or the Housing Acts.

Nature of Improvement	No. of Improvements
Floors repaired	583
Internal walls repaired	1,360
Ceilings repaired	604
Doors and windows repaired	1,059
Stairs repaired	34
Roofs repaired	314
Chimneys and flues repaired	132
Eavesgutters repaired	396
Rainwater pipes repaired	168
Soil and waste pipes repaired	81
External walls repaired	202
Yards, paths, etc., repaired	54
Sanitary conveniences repaired	791
"Tippler" closet conversions	5
Refuse accommodation	102
Drains repaired	171
Fire-ranges repaired	51
Sinks, water supplies, wash boilers, etc., repaired	1,264
Lighting, ventilation and decoration	677
Miscellaneous	1,037

TABLE 7

Atmospheric Pollution—Deposit Gauges

Total Monthly Deposit in Tons per Square Mile

1958	Red Lane	Haver-croft	Royal Infirmary	Hulton Hospital	Police Sports Ground	Astley Bridge Cemetery	Heaton Cemetery
January	15·61	20·78	22·18	16·45	23·87	27·49	23·86
February ..	14·24	16·90	16·63	16·41	22·20	15·50	21·44
March	7·64	11·90	11·98	12·38	13·70	10·47	no result
April	7·10	7·84	9·23	8·67	14·00	11·59	9·46
May	13·44	13·51	14·22	17·45	16·13	14·71	15·20
June	12·71	17·19	16·94	19·28	16·73	16·63	18·42
July	8·57	12·57	11·92	13·51	14·66	13·38	17·25
August	10·27	10·29	19·83	12·11	13·38	14·57	12·75
September ..	13·87	17·47	no result	15·08	19·98	20·70	19·36
October ..	9·47	10·26	13·31	11·71	16·99	16·39	18·26
November ..	10·00	15·39	15·61	11·71	20·08	15·80	16·51
Dec.	11·07	15·99	19·00	15·55	25·09	21·73	19·16
Monthly Avge	11·2	14·2	14·7	14·2	18·1	16·6	17·4
Monthly Avge Rainfall (litres)	7·04	8·58	7·70	8·23	8·04	8·72	8·64
Do. (inches)	3·63	4·44	4·15	4·25	4·13	4·43	4·47

TABLE 8

Atmospheric Pollution—Deposit Gauges

Site	Average total monthly deposit (tons per square mile)							
	1951	1952	1953	1954	1955	1956	1957	**1958**
Withins Farm/Red Lane	25·1	22·7	21·5	26·0	22·1	20·2	12·1	**11·2**
Havercroft	17·2	16·5	15·5	16·9	12·4	13·3	12·9	**14·2**
Royal Infirmary	24·4	19·5	23·8	23·1	20·5	20·3	14·6	**14·7**
Hulton Hospital	21·3	19·1	18·8	18·1	15·8	17·1	15·0	**14·2**
Police Sports Ground	29·3	30·0	27·4	33·4	26·4	23·0	17·8	**18·1**
Astley Bridge Cemetery	23·8	20·8	21·9	25·4	14·8	16·6	18·3	**16·6**
Average of 6 districts	23·5	21·4	21·5	23·8	18·7	18·4	15·1	**14·8**

TABLE 9

Atmospheric Pollution

Smoke—Daily Averages

(mgms. per 100 cubic metres of air)

Site	1957			1958											Total	Daily average each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1. Boot Lane	26·0	26·5	39·7	31·4	20·7	26·5	17·0	13·6	14·9	9·7	12·2	14·5	15·6	41·5	39·7	257·3	21·4
2. Astley St.	51·9	61·0	77·1	66·9	45·8	49·6	43·4	39·2	32·6	23·1	30·1	35·5	45·3	77·4	65·7	554·6	46·2
3. Tonge Moor	44·3	37·7	56·7	45·5	32·8	28·3	23·9	21·9	20·0	15·0	19·9	19·9	30·5	49·0	40·9	347·6	29·0
4. L.O.A.S.	23·1	22·4	38·8	32·1	17·7	21·2	14·2	12·5	12·5	8·5	10·9	12·5	13·2	36·4	30·0	221·7	18·5
5. Civic Centre	36·1	32·6	48·4	44·5	26·6	26·2	20·6	18·0	17·8	12·1	16·2	21·1	20·6	47·7	41·0	312·1	26·0
6. Withins C.	40·8	37·5	49·6	45·9	31·9	27·3	22·7	19·6	17·3	12·8	16·1	16·4	26·7	53·0	44·0	333·7	27·8
7. Lock Lane	31·2	34·4	48·3	37·6	23·6	28·3	19·7	16·4	16·9	11·6	14·5	18·5	18·2	45·3	40·9	291·5	24·3
8. Grecian Mill	47·6	50·6	66·2	59·7	39·6	39·9	32·2	27·7	25·6	18·6	21·4	24·8	30·2	60·3	43·7	423·7	35·3
9. Darcy Lever	41·3	39·0	57·8	50·0	38·5	35·1	29·5	22·3	22·8	17·3	19·2	19·1	27·7	51·7	44·0	377·2	31·4
Monthly average of all sites	38·0	38·0	53·6	46·0	30·8	31·4	24·8	21·2	20·0	14·3	17·8	20·3	25·3	51·3	43·3		**28·9**

TABLE 10

Atmospheric Pollution

Sulphur Dioxide—Daily Averages

(parts per 100 million of air)

Site	1957			1958											Total	Daily average of each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1.	4·7	6·6	11·1	8·1	4·2	5·1	3·0	2·5	4·3	2·6	2·6	3·9	4·5	12·8	13·8	67·4	5·6
2.	11·9	14·2	15·8	15·7	8·5	10·5	9·0	8·5	9·3	6·1	7·8	9·1	11·4	20·8	20·8	137·5	11·5
3.	7·3	9·7	14·1	13·1	8·4	6·0	4·9	5·5	5·3	3·8	5·2	5·3	8·2	14·5	13·9	94·1	7·8
4.	4·9	6·9	11·1	10·7	5·2	3·4	3·9	3·8	4·2	2·6	2·6	3·4	4·7	11·8	11·1	67·4	5·6
5.	12·4	14·1	18·2	19·2	12·8	11·9	10·9	10·3	14·0	15·3	18·2	19·4	13·6	20·1	20·4	186·1	15·5
6.	7·9	9·4	11·2	12·2	7·0	6·6	5·4	4·9	4·6	3·3	3·7	3·7	7·0	13·9	12·4	84·7	7·1
7.	5·3	7·1	11·2	10·7	5·5	8·2	5·5	5·2	5·4	3·5	3·0	4·0	4·8	14·7	12·6	83·1	6·9
8.	12·3	15·7	20·4	21·3	12·9	14·3	10·9	9·0	8·7	6·1	6·6	8·4	11·3	25·8	23·3	158·6	13·2
9.	7·5	10·8	11·8	14·2	10·3	9·8	7·6	6·5	6·7	5·0	4·9	5·4	8·5	15·8	15·3	110·0	9·2
Monthly average of all sites	8·2	10·5	13·9	13·9	8·3	8·4	6·8	6·2	6·9	5·4	6·1	7·0	8·2	16·7	16·0		**9.2**

TABLE 11

Atmospheric Pollution

3 : 4 Benzpyrene—Monthly Averages

(Micrograms per 100 cubic metres of air)

Site	1957			1958											Total	Average of each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1.	3·0	5·2	9·2	8·0	4·8	7·0	3·6	2·0	0	1·2	1·0	0·9	0·9	7·9	4·8	42·1	3·5
2.	12·6	19·2	23·5	27·3	16·2	19·8	14·1	6·9	5·8	3·0	4·0	2·8	4·2	16·3	8·3	128·7	10·7
3.	6·8	9·1	16·6	14·2	10·0	8·3	4·4	2·4	2·0	1·2	1·8	1·8	3·9	9·5	10·3	69·8	5·8
4.	1·8	4·8	9·2	7·6	3·4	5·3	1·8	0·9	1·6	1·6	0·9	0·9	1·4	6·0	4·8	36·2	3·0
5.	6·1	7·4	15·2	9·0	6·0	6·0	1·8	1·7	1·8	1·3	1·0	1·2	1·7	3·6	7·2	42·3	3·5
6.	5·9	4·7	15·2	7·8	8·2	7·9	4·5	2·3	2·4	1·1	2·0	1·2	2·3	9·9	8·4	58·0	4·8
7.	4·5	8·8	12·6	13·2	3·7	5·5	2·7	1·5	2·1	1·4	1·3	1·2	0·8	1·3	8·6	43·3	3·6
8.	7·9	13·6	18·4	22·1	11·7	13·9	4·6	4·4	3·2	2·1	2·7	1·7	3·3	8·3	11·1	89·1	7·4
9.	6·8	10·6	15·6	16·1	11·1	10·4	4·7	2·6	2·6	1·2	1·7	0·9	1·2	9·6	9·3	71·4	6·0
Monthly average of all sites	6·2	9·3	15·1	13·9	8·3	9·3	4·7	2·7	2·4	1·6	1·8	1·4	2·2	8·0	8·1		**5·4**

TABLE 12

Atmospheric Pollution

1 : 12 Benzperylene—Monthly Averages

(Micrograms per 100 cubic metres of air)

Site	1957			1958												Total	Average of each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1.	4·6	6·8	3·4	8·0	3·9	2·8	1·9	0·4	2·3	0	1·6	2·8	4·2	14·2	17·8	59·9	5·0
2.	15·3	15·7	22·7	17·1	9·9	11·7	7·3	7·6	4·3	5·5	5·3	0·9	18·1	34·5	42·1	164·3	13·7
3.	6·9	8·3	11·0	11·3	5·7	4·5	3·9	3·4	2·2	1·8	3·1	3·2	8·3	19·6	14·4	81·4	6·8
4.	3·3	3·2	8·2	2·8	2·7	2·7	1·5	0·9	0·3	0	1·4	2·0	2·3	12·3	15·0	43·9	3·7
5.	7·4	5·7	21·2	8·3	5·1	3·3	3·6	2·6	1·8	1·2	2·4	3·6	4·8	17·8	12·4	66·9	5·6
6.	8·2	4·9	13·5	5·6	6·3	4·5	3·5	0·2	2·2	1·1	1·9	3·4	8·9	18·0	14·2	69·8	5·8
7.	5·1	7·2	12·7	8·7	4·2	6·0	3·2	0	0·9	0·9	2·0	2·9	5·7	26·3	14·1	74·9	6·2
8.	11·8	11·1	11·6	16·1	7·5	6·8	7·2	3·7	4·1	2·3	3·0	7·7	8·8	32·0	17·9	117·1	9·8
9.	5·5	6·9	15·2	10·1	7·5	5·7	4·3	3·8	3·7	3·0	3·5	3·3	12·2	22·5	19·4	99·0	8·3
Monthly average of all sites	7·6	7·8	13·3	9·8	5·9	5·3	4·0	2·5	2·4	1·8	2·7	3·3	8·1	21·9	18·5		**7·2**

TABLE 13

Atmospheric Pollution

Pyrene—Monthly Averages

(Micrograms per 100 cubic metres of air)

Site	1957			1958											Total	Average of each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Scpt.	Oct.	Nov.	Dec.		
1.	1·9	0·8	4·8	7·0	3·3	2·7	0·5	0·4	0·2	0·1	0·2	0·4	1·8	6·2	1·9	24·7	2·1
2.	10·2	13·1	27·1	20·2	4·0	6·5	5·7	0·8	0·8	1·2	0·6	0·3	3·4	11·7	15·6	70·8	5·9
3.	1·6	4·0	17·6	8·7	4·7	2·2	1·1	no result	0·4	0·1	0·1	0·3	1·9	3·9	8·8	32·2	2·9
4.	1·2	2·7	1·7	3·7	1·2	1·1	1·2	0·4	0·4	0·1	0·2	0·3	0·8	3·8	2·8	16·0	1·3
5.	2·8	1·3	8·4	4·9	1·0	4·2	1·3	0·6	0·1	0·3	0·1	0·5	1·4	2·2	3·2	19·8	1·7
6.	2·0	6·2	15·6	14·2	9·9	4·1	1·7	0·4	0·2	0	0·6	0·5	0·9	4·8	5·2	42·5	3·5
7.	0·6	2·3	9·8	5·2	1·0	2·1	1·2	0	0·5	0·2	0·2	0·2	0·5	3·0	2·0	16·1	1·3
8.	3·6	8·1	12·9	11·3	2·4	2·9	1·2	0·5	0·1	0·1	0·1	0·6	0·9	9·2	8·4	37·7	3·1
9.	2·5	5·2	11·8	16·7	6·3	4·4	1·3	0·8	0·9	0·3	0·1	0·5	1·0	4·0	6·1	42·4	3·5
Monthly average of all sites	2·9	4·9	12·2	10·2	3·8	3·4	1·7	0·5	0·4	0·3	0·2	0·4	1·4	5·4	6·0		**2·8**

TABLE 14

Atmospheric Pollution

3 : 4 Benzpyrene—Monthly Averages

(Concentration expressed as Parts per Million of the Smoke)

Site	1957			1958											Total	Average of each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1.	115	195	230	256	230	264	212	145	0	120	82	61	57	191	120	1,738	145
2.	243	314	305	407	354	399	325	177	179	132	133	79	92	211	126	2,614	218
3.	153	241	293	313	305	292	182	111	101	79	91	92	127	193	251	2,137	178
4.	78	214	237	236	193	248	126	71	125	189	80	70	106	164	159	1,767	147
5.	169	226	314	202	226	228	88	92	104	109	60	56	84	76	177	1,502	125
6.	145	124	306	169	257	291	200	117	138	86	125	76	87	187	191	1,924	160
7.	144	257	260	351	158	195	136	89	126	120	90	63	44	28	209	1,609	134
8.	166	270	277	370	295	348	144	159	126	111	126	67	109	138	254	2,247	187
9.	165	271	269	322	289	295	159	115	116	67	91	46	42	186	211	1,939	162
Monthly average of all sites	153	235	277	292	256	284	175	120	113	113	98	68	83	153	189		**162**

TABLE 15

Atmospheric Pollution

1 : 12 Benzperylene—Monthly Averages

(Concentration expressed as Parts per Million of the Smoke)

Site	1957			1958												Total	Average of each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1.	177	257	85	254	188	105	111	31	152	0	135	191	265	342	448	2,222	185
2.	295	257	295	256	217	236	168	193	133	239	176	27	400	445	641	3,131	261
3.	156	220	195	249	173	159	163	157	108	119	156	159	272	400	352	2,467	206
4.	143	143	213	89	156	129	106	69	23	0	132	156	175	337	500	1,872	156
5.	205	174	438	187	191	125	176	146	100	102	147	171	231	376	303	2,255	188
6.	201	130	272	121	197	164	155	9	128	87	119	210	334	340	322	2,186	182
7.	163	209	262	231	177	211	162	0	56	78	137	157	313	581	345	2,448	204
8.	248	222	176	270	189	171	222	134	162	125	142	312	291	529	410	2,957	246
9.	133	176	264	202	195	162	146	170	161	174	181	173	442	435	442	2,883	240
Monthly average of all sites	191	199	244	207	187	162	157	101	114	103	147	173	303	421	418		**208**

TABLE 16

Atmospheric Pollution

Pyrene—Monthly Averages

(Concentration expressed as parts per Million of the Smoke)

Site	1957			1958											Total	Average of each site for 1958
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1.	73	29	121	224	158	103	29	31	13	9	16	26	113	150	49	921	77
2.	197	215	353	302	87	130	131	21	26	51	19	7	74	151	237	1,236	103
3.	36	105	310	191	145	77	45	No. result	20	10	6	15	63	80	215	867	79
4.	52	119	44	115	68	53	88	32	29	9	20	22	62	104	92	694	58
5.	77	40	175	110	376	158	62	34	6	22	8	23	66	47	79	991	83
6.	49	164	315	309	310	150	75	18	11	2	36	33	35	90	117	1,186	99
7.	19	65	202	139	41	76	64	0	28	15	17	13	29	66	49	537	45
8.	76	161	194	190	59	72	37	19	5	6	6	23	30	153	192	792	66
9.	60	133	204	334	162	126	45	35	41	17	6	28	37	76	138	1,045	87
Monthly average of all sites	71	114	213	213	156	105	64	24	20	16	15	21	57	102	130		**77**

COUNTY BOROUGH OF BOLTON

AIR POLLUTION

TABLE 18

SULPHUR DIOXIDE

DAILY AVERAGES

PARTS PER 100 MILLION OF AIR

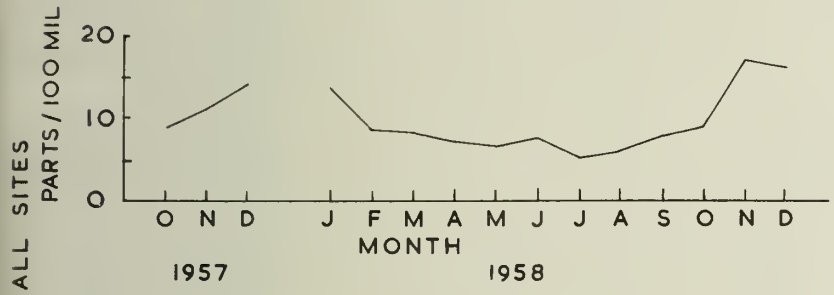


TABLE 17

SMOKE

DAILY AVERAGES

MGMS PER 100 C. METRES OF AIR

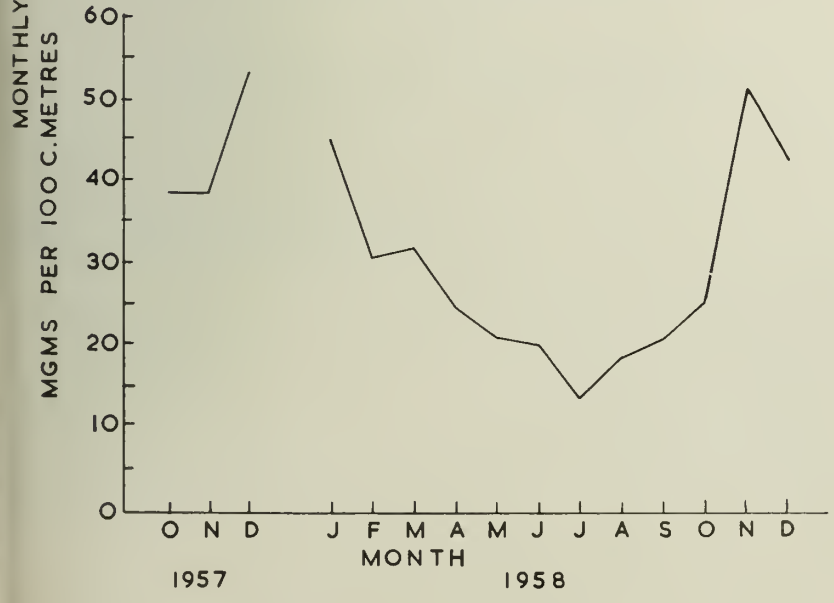


TABLE 19

Atmospheric Pollution

Estimation of active Sulphur gases by Lead Peroxide Method

1958	Mgms. of SO_3 per 100 sq. cms. per day		
	Havercroft	Withins Farm or Red Lane	Civic Centre
January	2·56	6·11	4·69
February	1·93	3·96	2·78
March	2·24	4·04	3·47
April	1·23	3·00	2·79
May	1·03	2·74	2·16
June	1·14	2·75	1·96
July	0·53	1·86	1·34
August	2·95	nil	2·59
September	1·15	3·81	2·65
October	1·16	3·70	2·93
November	2·67	5·62	4·79
December	2·85	5·90	4·95
Monthly Average:—			
1958	**1·89**	**3·62**	**3·09**
1957	1·61	3·34	2·91
1956	1·79	3·32	3·15
1955	1·66	2·83	3·14
1954	1·63	2·40	2·90

TABLE 20

Bacteriological Examination of Ice Cream

	Bolton Manufacturers		Outside Manufacturers	
	Wrapped Ice Cream	Loose Ice Cream	Wrapped Ice Cream	Loose Ice Cream
No. of samples of Grade 1 standard	2	19	15	–
No. of samples of Grade 2 standard	1	5	10	–
No. of samples of Grade 3 standard	1	16	0	–
No. of samples of Grade 4 standard	0	3	1	–
TOTALS	4	43	26	–

TABLE 21

Samples of Food and Drugs Submitted

Article	*Total*	*Genuine*	*Adulterated or otherwise unsatisfactory*
Milk	771	760	11
Butter	17	16	1
Cakes	5	5	–
Candied Peel	4	4	–
Cereals	59	44	15
Cheese	6	6	–
Christmas Pudding	2	2	–
Condensed Milk	7	5	2
Cooking Fat	3	3	–
Crab	3	1	2
Cream	10	10	–
Dripping	4	4	–
Flour and Flour Mixture	15	15	–
Food Flavours	6	6	–
Fruit	28	28	–
Fruit, Dried	22	15	7
Ground Almonds	7	7	–
Jellies	9	9	–
Lard	5	5	–
Malt Vinegar	4	4	–
Margarine	9	9	–
Meat Pies	29	29	–
Meat Products	6	6	–
Mincemeat	7	7	–
Mustard	2	2	–
Non-alcoholic Drinks	12	11	1
Nuts	30	20	10
Potatoes	13	13	–
Preserves	16	16	–
Salmon (Canned)	2	2	–
Sauces	3	3	–
Soup (Dried)	8	8	–
Spices	13	12	1
Spirits	13	13	–
Suet	2	2	–
Sugar	7	7	–
Sweets	15	15	–
Tea	5	5	–
Miscellaneous Foods	14	13	1
Borax	3	3	–
Boric Acid	1	1	–
Castor Oil	2	2	–
Cooling Powders	1	1	–
Friar's Balsam	2	2	–
Liquid Paraffin	1	1	–
Liquorice Powder	2	2	–
Ointments	5	5	–
Petroleum Jelly	2	2	–
Seidlitz Powders	6	4	2
Tablets	10	10	–
Tincture of Iodine	1	1	–
Tonic	1	1	–
TOTALS	1,230	1,177	53

TABLE 22

Unsatisfactory Samples of Food and Drugs

MILK:

11 samples were reported as adulterated.
10 of these contained added water in amounts varying between 0.6 and 25 per cent.
1 sample was deficient in fat to the extent of 4.0 per cent.

BUTTER:

1 sample contained foreign matter in the form of an elastic adhesive dressing impregnated with blood. This sample was the subject of legal proceedings, but the case was dismissed.

CEREALS:

4 samples of sago were infested with meal mites, and 1 with insects resembling book-lice.
2 samples of rice, 3 samples of lentils, 1 sample of barley, 1 sample of tapioca and 1 sample of dried peas were all infested with meal mites.
1 sample of oatmeal was infested with insects resembling book-lice.
1 sample of brown beans was infested with meal mites and, being a pre-packed article, was not correctly labelled.

CONDENSED MILK:

2 samples of condensed sweetened machine-skimmed milk, each contained a mould growth and had an unpleasant odour and taste.

DRESSED CRAB:

2 samples each contained an undue proportion of cereal filler, 12.4% and 15.5% respectively, instead of not more than 3%.

DRIED FRUIT:

4 samples of currants, 2 samples of sultanas, and 1 sample of apricots each contained foreign matter in the form of mites, insects, insect fragments, moulds or rodent hairs.

MALT LOAVES:

1 sample contained foreign matter in the form of jute fibres, probably derived from sacking material.

NON-ALCOHOLIC DRINKS:

1 sample labelled "Non-Alcoholic Port Flavour" but the words "Non" and "Flavour" were partially obscured (misleading label).

NUTS:

5 samples of walnuts, 2 samples of peanuts and 2 samples of mixed nuts each contained foreign matter in the form of mites and/or insects, insect fragments, moulds and webbing.
1 sample of peanuts contained foreign matter in the form of sawdust and meal mites.

PICKLING SPICE:

1 sample was infested with meal mites.

SEIDLITZ POWDER:

1 sample contained 4 packets in which the No. 1 powder was excessive in weight.
1 sample contained 3 packets in which the No. 1 powder was excessive in weight and 1 packet of No. 2 powder deficient in weight.

TABLE 23

Factories Act, 1937
Places of Employment
Defects Found

Particulars	Number of cases in which defects were found				No. of cases in which prosecutions were instituted
	Found	Remedied	Referred to H.M. Inspector	Referred by H.M. Inspector	
Want of Cleanliness (S.1)	3	2	–	–	–
Overcrowding (S.2)	–	–	–	–	–
Unreasonable temperature (S.3) ..	–	–	–	–	–
Inadequate ventilation (S.4)	–	–	–	–	–
Ineffective drainage of floors (S.6) ..	1	–	–	–	–
Sanitary Conveniences (S.7):—					
(*a*) Insufficient	–	–	–	–	–
(*b*) Unsuitable or defective	101	65	–	–	–
(*c*) Not separate for sexes	–	–	–	–	–
Other offences against the Act (not including offences relating to Outwork)	1	–	–	–	–
TOTALS	106	67	–	–	–

TABLE 24

Factories Act, 1937
Outwork (Sections 110 and 111)

Nature of Work	Section 110			Section 111		
	No. of Outworkers in Aug. list required by Sect. 110 (1) (*c*)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing (Making etc.) apparel ..	6	–	–	–	–	–
Furniture and Upholstery ..	20	–	–	–	–	–
Brush making ..	–	–	–	–	–	–
Stuffed Toys ..	–	–	–	–	–	–
TOTALS ..	26	–	–	–	–	–

TABLE 25

Factories Act, 1937
Places of Employment—Improvements Secured

Cleanliness improved	2
Temperature improved	–
Sanitary Accommodation:—	
Additional accommodation provided	2
Accommodation improved	251
Accommodation reconstructed	–
Ventilation improvements	20
Drainage improvements	1
Miscellaneous improvements	5

TABLE 26

Factories Act, 1937
Places of Employment
Inspection for Purposes of Provisions as to Health

Premises	Number on Register	Number of		Occupiers Prosecuted
		Inspections	Written Notices	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	116	226	14	–
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	928	548	69	–
(iii) Other premises in which Section 7 is enforced by the Local Authority * (excluding outworkers' premises)	35	11	1	–
TOTALS	1,079	785	84	–

*Electrical Stations, Institutions, Building Operations and Works of Engineering Construction.

TABLE 27

Disinfection

	Free of Charge	On Payment of Charge	Total
Premises visited for Disinfection	75	–	75
Beds	44	–	44
Rooms	46	–	46
Articles	519	151	670
Articles Destroyed	92	–	92

The 75 premises disinfected free of charge were for the following reasons:—

Tuberculosis	26	Gangrene	1
Scabies	1	Verminous conditions ...	24
Cancer	17	Precautionary...	6

TABLE 28

Disinfestation

Infestation by	Number of Premises Disinfested				Total
	Domestic Premises	Business & Industrial	Hospitals	Schools	
Bed Bugs..	43	1	–	–	44
Cockroaches	225	122	12	7	366
Fleas	46	3	–	–	49
Golden Spider Beetles	11	3	–	1	15
Wasps	7	1	2	–	10
Wood Lice	4	–	–	1	5
Body Lice	3	3	–	–	6
Silver Fish	5	–	–	2	7
House Fly	3	14	–	–	17
General Disinfestation	83	1	–	–	84
Others	15	22	–	–	37

TABLE 29

Destruction of Rats and Mice
Prevention of Damage by Pests Act, 1949

	Type of Property				
	Local Authority	Dwelling Houses	Agri-cultural	All other (including Business and Industrial)	Total
I. Total number of properties in Local Authority's district	129	56,383	102	6,577	63,191
II. Number of properties inspected by the Local Authority as a result of (*a*) notification or (*b*) otherwise	(*a*) 53	585	3	199	840
	(*b*) 343	545	409	8,133	9,430
III. Number of properties (under II) found to be infested with rats	Major 14	1	2	13	30
	Minor 38	498	6	142	684
IV. Number of properties (under II) found to be seriously infested with mice	132	176	–	233	541
V. Number of infested properties (under III and IV) treated by Local Authority	182	666	6	374	1,228
VI. Number of notices served under Section 4:— (1) Treatment	Nil				
(2) Structural Works (i.e. proofing)	Enforced under Public Health Act, 1936				
VII. Number of cases in which default action was taken by Local Authority following issue of notice under Section 4	Nil				
VIII. Legal Proceedings	Nil				
IX. Systematic control of blocks of buildings	349				

RESEARCH ON AIR POLLUTION IN BOLTON

It is now possible to review the results obtained from the 9 additional air sampling stations which have been continuously in operation in Bolton since the 1st October, 1957. The period reviewed is the twelve months from that date to the 30th September, 1958, both inclusive.

The Problem

The research was prompted by (1) the desire to discover, on a basis of need, the order of priority to be accorded to different areas within the borough in the making of new smoke control areas, (2) the possibility that future alterations in the firing techniques due to mechanisation of boiler house plants and changes in the nature of fuels used in new smoke control areas would cause variations in the level of pollution from sulphur dioxide and other invisible chemicals, and that scientific investigations carried out on air pollution existing in 1957 would enable comparison to be made with changes envisaged when the Clean Air Act, 1956, had been operative for a reasonable time.

Siting of Stations

Prior to deciding upon the position of the 9 sampling stations, an analysis was made of the meteorological data then available. During the period of the research, meteorological readings of wind direction have been noted and analysis of the data supports the original decision as to the location of the stations upon South West and North East base lines.

The stations have been sited in the form of a grid across the town in three parallel lines in the direction of the prevailing wind, with three sites on each line, enabling data to be obtained on the concentration and nature of pollution at points entering Bolton from adjacent towns, in congested areas of the borough, and at points where pollution leaves the town. The measuring instruments at each station are fitted with smoke filters which are substantially similar to the standardised apparatus normally used for volumetric determination of sulphur dioxide and total impurities in the atmosphere, including the meter to measure the volume of air.

The 9 air sampling stations are situated at the following points in the town, and the location of them can be seen from Appendix 6.

1. Boot Lane
2. Astley Street
3. Tonge Moor
4. Lostock Open Air School
5. Civic Centre
6. Withins Clinic
7. Lock Lane
8. Grecian Mill
9. Darcy Lever

Analytical Data

The concentrations of smoke and sulphur dioxide are determined daily and the concentration of smoke is assessed by means of a reflectometer. The smoke stains from the filter papers at each station have also been examined each month for the presence of potential carcinogens which may be contributory factors in the incidence of certain respiratory diseases. The chemicals isolated are polycyclic hydrocarbons (3 : 4 Benzpyrene; 1 : 12 Benzperylene; and Pyrene).

Smoke concentrations are expressed as milligrams of solids per 100 cubic metres of air; sulphur dioxide concentrations are expressed as parts per 100 million.

Statistical Analysis of Data Available

The first stage of the analysis carried out by the statistician was to summarise in tabular form the pollution data available. Over 5,200 recorded observations were examined and from them was tabulated the maximum, minimum and average concentration of smoke and sulphur dioxide month by month for each of the 9 stations. The tabulated summary appears in Appendix 4. The next stage was to reduce this summary to enable the trend of the results to become visible. This is shown in Appendix 5, from which we can derive the following information.

The spread of pollutant concentrations, i.e., (*a*) the difference between maxima and minima figures, (*b*) the incidence or otherwise of any relationship between invisible and visible pollutants, (*c*) spread or scatter on a geographical basis, i.e. station by station, (*d*) spread or scatter on a chronological basis, i.e. for maxima and minima of average concentrations irrespective of when they occur.

The questions which seemed to require an answer related to (*a*) geographical, (*b*) chronological and (*c*) regularity factors.

Trends Observed

Smoke Pollution

It will be seen from Appendix 1 that the air sampling stations have been listed in order of descending pollution by smoke. The highest pollution occurs at Station 2 (Astley Street) followed by Stations 8 (Grecian Mill), 9 (Darcy Lever) and 3 (Tonge Moor), in descending order. The lowest pollution is at Station 4 (Lostock Open Air School) with Station 1 (Boot Lane) only slightly worse.

Sulphur Dioxide Pollution

Again referring to Appendix 1 it is observed that the highest SO_2 pollution occurs at Station 5 (Civic Centre), followed by Stations 8 (Grecian Mill) and 2 (Astley Street) in descending order, the lowest pollution is at Station 1 (Boot Lane) with Station 7 (Lock Lane) slightly worse.

Although the Station 4 (Lostock Open Air School) shows the best results on smoke pollution, it is thought that the position it occupies for SO_2 is high and that this is likely to be due to pollution which is imported from other districts.

Correlation between Sulphur Dioxide and Smoke

The station annual averages have been plotted against each other (Appendix 2) to see where any connection exists between sulphur dioxide and smoke. The agreement is good for Stations 1 (Boot Lane), 2 (Astley Street), 3 (Tonge Moor), 6 (Withins Clinic), 7 (Lock Lane) and 9 (Darcy Lever).

Stations 4 (Lostock Open Air School), 5 (Civic Centre) and 8 (Grecian Mill) show inconformity, the results lying well above the line on the graph. This indicates that the SO_2 pollution is very high, compared to the smoke pollution, particularly in the case of Station 5 (Civic Centre). The explanation of this is not readily forthcoming. It is known that visible pollution from smoke has been diminished, but there has not been a corresponding reduction in quantities of SO_2 emitted. It may be that there is some local source of pollution emitting SO_2 in high concentrations and to discover this three additional temporary air sampling stations have been installed at suitable sites, having regard to prevailing winds, with a view to pinpointing the exact source of high SO_2 pollution. The question of sulphur content of smokeless fuels has not been overlooked.

Appendix 3 shows the comparative measurements of SO_2 at Station 5 (Civic Centre) during the past eight years, using volumetric apparatus and for the past six years using the lead peroxide instrument. The increased rate of pollution by SO_2 since 1955 is revealed by both types of measuring apparatus in use at this particular station.

Polycyclic Hydrocarbons Isolated from Smoke

The concentrations of polycyclic hydrocarbons were found to be more closely related to those obtained from smoke than to sulphur dioxide.

The results obtained have not been included in these statistics, but they have been forwarded (along with the other results) to Professor John Pemberton, Group for Epidemiological Research on Respiratory Diseases (Air Pollution), Medical Research Council.

Medical Aspect of Research

It is hoped that the records of the air pollution will be of value for the purpose of medical research and will enable comparison of levels of pollution in various districts with medical statistics on certain chest diseases. The latter are continuing to be compiled in the department, but it may be several years before the medical aspect can be interpolated. Copies of the records of air pollution and medical statistics are sent to Professor John Pemberton.

Phasing of Future Smoke Control Areas

The phasing of future smoke control areas can be carried out on a scientific basis as a result of the present research; those areas which have shown a high level of pollution will show an improvement as progress is made in the declaration of new areas which are to be made virtually smoke free. By this means it is considered that by the year 1965 smoke will have been noticeably reduced in the town and by the year 1971 the substantial further reduction should render all parts of the borough, so far as practicable, free from smoke pollution.

Acknowledgement

The best thanks of the Health Department are extended to Mr. H. Johnson (Accrington) for his services as a statistician in the research programme.

APPENDIX 1

Comparative Annual Pollution by Smoke and Sulphur Dioxide for each Station

Smoke ▲ Increasing Concentration		Minima		Maxima		Station Average	
	Uniformly worst stations	2	23·5	2	90·0	2	46·3
		8	18·1	8	80·8	8	34·3
		9	15·0	9	71·5	9	32·7
		3	12·7	3	69·7	3	30·5
		6	12·3	7	67·9	6	28·1
		5	9·1	6	63·2	5	26·7
		7	5·9	5	62·1	7	25·1
	Uniformly best stations	1	4·46	1	55·4	1	21·0
		4	3·4	4	53·1	4	18·9

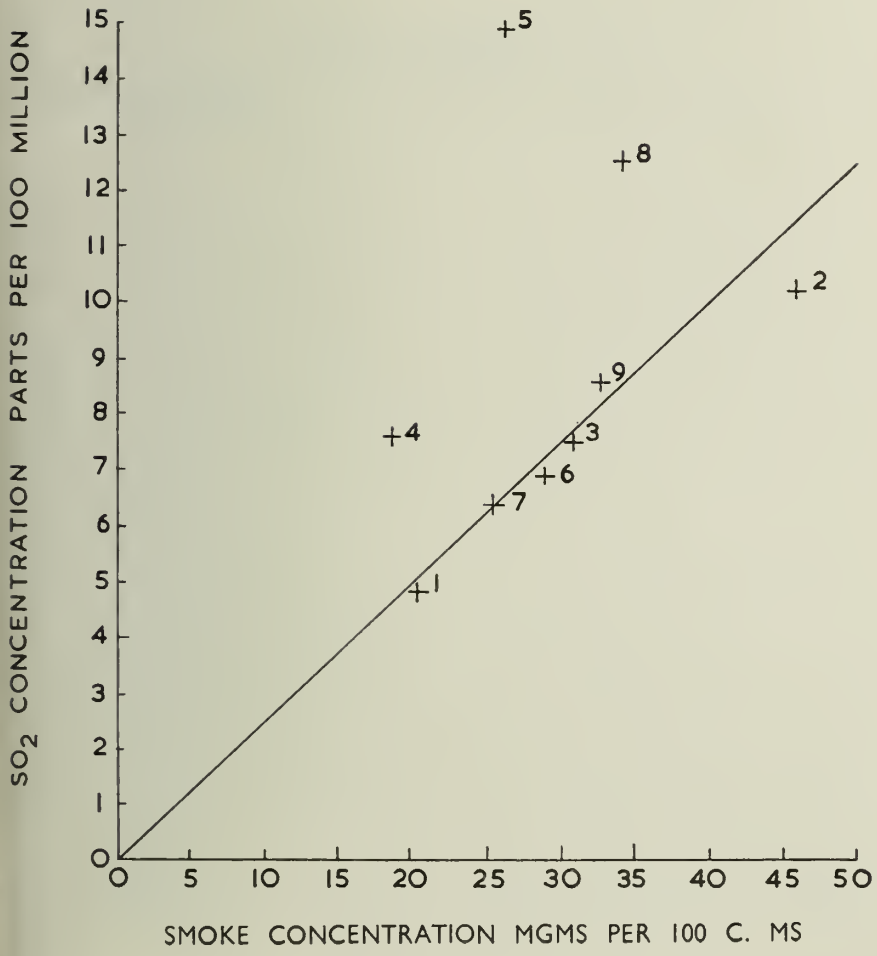
Sulphur Dioxide ▲ Increasing Concentration		Minima		Maxima		Station Average	
	Uniformly worst stations	5	6·65	5	29·0	5	14·8
		8	4·61	8	27·7	8	12·2
		2	3·80	2	23·3	2	10·5
		9	3·56	3	18·8	9	8·54
		3	2·85	7	18·8	4	7·5
		6	2·06	9	16·7	3	7·4
		4	0·85	6	16·2	6	6·67
		7	0·63	1	14·9	7	6·21
		1	0·608	4	14·7	1	4·9

PERIOD 1st October, 1957
TO 30th September, 1958

COUNTY BOROUGH OF BOLTON

AIR SAMPLING

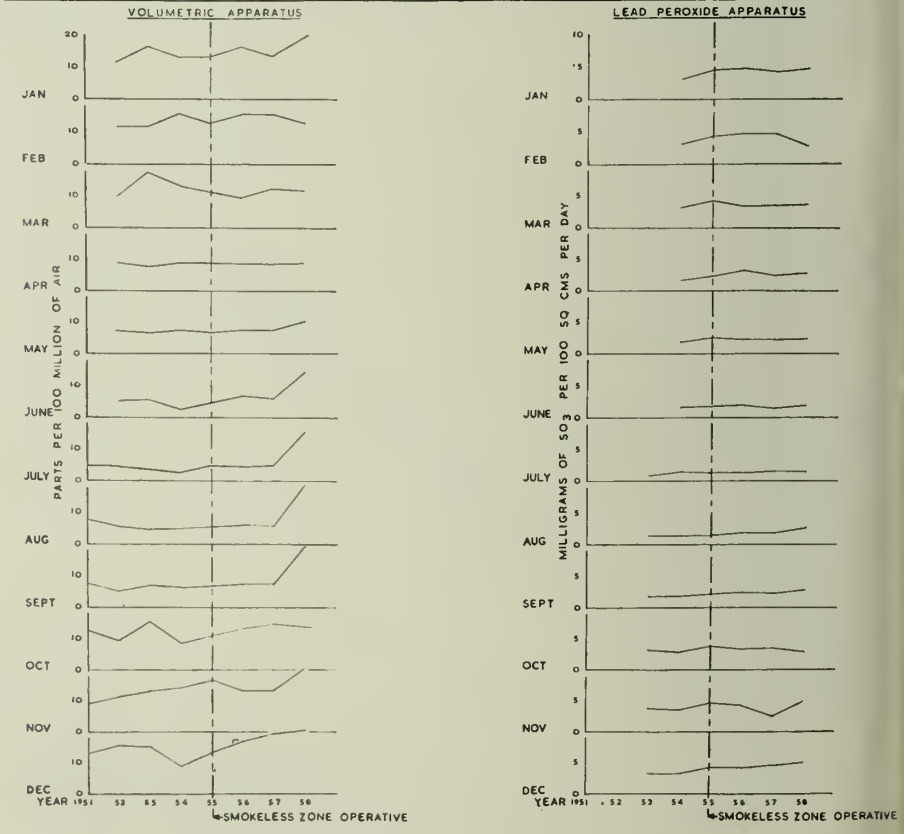
APPENDIX 2



Plot of Smoke Concentration VS Sulphur Dioxide Concentration

APPENDIX 3

COUNTY BOROUGH OF BOLTON
AIR SAMPLING.
MEASUREMENT OF SULPHUR DIOXIDE AT THE CIVIC CENTRE STATION.



APPENDIX 4

Tabular Summary showing Minimum, Maximum and Average Concentrations of Smoke and Sulphur Dioxide for each Station for the twelve months

Station No.		1			2			3			4			5			6			7			8			9		
Month		min.	max.	av.	min.	max.	av.	min.	max.	av.	min.	max.	av.	min.	max.	av.	min.	max.	av.	min.	max.	av.	min.	max.	av.	min.	max.	av.
1957 OCT.	SM	5.6	74.9	26.0	33.7	85.8	51.9	16.2	85.2	44.3	2.4	82.5	23.1	11.1	99.6	36.1	17.9	70.1	40.8	5.4	73.3	31.3	25.7	112.5	47.6	22.9	73.4	41.4
	SO2	0.2	11.8	4.7	4.4	21.9	11.9	1.3	13.5	7.3	1.2	11.7	4.9	5.9	32.8	12.9	2.3	17.5	7.9	0.6	12.3	5.3	3.0	34.7	12.4	2.2	14.8	7.5
NOV.	SM	5.9	65.1	26.5	38.1	103.0	61.0	16.3	79.4	37.7	6.9	61.8	22.4	13.8	60.8	32.6	16.5	86.3	37.5	11.9	74.6	34.4	19.1	100.5	50.6	18.9	77.9	39.0
	SO2	1.7	13.9	6.6	6.1	25.3	14.2	4.5	17.5	9.7	1.8	14.8	6.9	7.2	28.4	14.1	4.8	19.5	9.4	1.8	20.8	7.1	8.6	36.9	15.7	6.0	17.0	10 8
DEC.	SM	6.5	120.1	39.7	24.5	218.0	77.1	12.3	203.3	56.7	3.1	134.6	38.8	9.4	163.9	48.4	10.4	163.5	49.6	6.2	167.8	48.3	24.1	223.2	24.1	20.3	215.0	57.8
	SO2	0.6	44.2	11.1	2.1	48.7	15.8	2.8	51.0	14.1	1.3	44.4	11.1	4.1	55.1	18.2	0.7	37.8	11.2	0.2	51.3	11.2	6.0	65.5	20.4	2.5	28.9	11.8
1958 JAN.	SM	5.5	116.5	31.4	27.0	172.2	66.9	18.0	144.9	45.5	3.5	119.1	32.1	9.5	125.1	44.5	17.9	119.9	45.9	6.6	168.9	37.6	23.3	151.4	59.7	3.4	123.2	50.0
	SO2	1.5	33.1	8.1	3.2	58.3	15.7	3.7	49.0	13.1	1.4	36.7	10.7	8.8	52.1	19.2	2.9	32.4	12.2	0.3	46.2	10.7	6.8	57.4	21.3	0.7	38.5	14.2
FEB.	SM	5.1	44.5	20.7	25.1	86.4	45.8	14.8	72.1	32.8	4.6	34.8	17.7	11.6	47.4	26.6	17.5	68.0	31.9	5.6	47.8	23.6	24.7	62.7	39.6	19.3	83.0	38.5
	SO2	0.5	13.7	4.2	2.2	28.3	8.5	2.9	28.1	8.4	Nil	15.0	5.2	6.6	23.3	12.8	2.7	21.6	7.0	0.3	18.9	5.5	5.1	24.8	12.9	5.1	24.3	10.3
MARCH	SM	4.4	44.2	20.5	27.6	71.1	49.6	11.1	49.6	28.3	5.1	36.2	21.2	8.8	46.8	26.2	11.6	61.9	27.3	4.3	47.4	28.3	24.1	63.2	39.9	22.4	53.8	35.1
	SO2	0.3	12.1	5.1	3.7	17.9	10.5	3.1	11.7	6.0	0.6	7.1	3.4	4.6	19.6	11.9	1.4	14.4	6.6	0	16.0	8.2	5.9	26.1	14.3	6.0	15.4	9.8
APRIL	SM	3.7	37.3	17.0	24.2	61.7	43.4	15.4	39.4	23.9	2.7	31.1	14.2	6.9	38.5	20.6	14.9	43.5	22.7	4.0	43.9	19.7	17.8	52.7	32.2	18.2	46.8	29.5
	SO2	0.6	8.8	3.0	4.1	13.9	9.0	2.8	8.5	4.9	1.1	10.1	3.9	6.7	18.7	10.9	2.7	11.6	5.4	1.0	12.5	5.5	4.3	18.6	10.9	4.5	13.2	7.6
MAY	SM	3.0	26.3	13.6	25.5	53.8	39.2	9.1	31.2	21.9	3.6	33.5	12.5	9.2	30.8	18.0	9.5	30.1	19.6	5.2	34.3	16.4	11.8	43.1	27.7	13.7	33.7	22.3
	SO2	0.5	7.9	2.5	4.6	12.3	8.5	2.8	9.7	5.5	0.9	9.4	3.8	6.8	16.3	10.3	1.0	10.1	4.9	1.9	11.9	5.2	4.5	15.9	9.0	3.0	11.8	6.5
JUNE	SM	4.1	36.2	14.9	14.0	60.7	32.6	11.4	32.6	20.0	4.5	29.3	12.5	6.8	33.5	17.8	7.8	30.0	17.3	5.4	42.8	16.9	13.4	45.3	25.6	10.4	38.5	22.8
	SO2	1.4	9.1	4.3	4.5	15.8	9.3	2.3	9.4	5.3	1.9	8.4	4.2	2.1	22.6	14.0	2.1	9.4	4.6	1.5	10.4	5.4	4.9	13.4	8.7	4.3	9.2	6.7
JULY	SM	3.6	27.0	9.7	10.9	43.4	23.1	7.3	31.8	15.0	0	16.6	8.5	4.0	25.2	12.1	6.9	25.4	12.8	3.2	26.9	11.6	8.1	32.5	18.6	9.6	34.3	17.3
	SO2	0	6.4	2.6	1.5	11.3	6.1	1.7	7.9	3.8	0	5.3	2.6	3.2	20.8	15.3	1.4	6.6	3.3	0	7.5	3.5	0.5	10.9	6.1	2.6	9.4	5.0
AUG.	SM	3.3	42.5	12.2	15.1	58.6	30.1	11.4	30.3	19.9	4.3	32.2	10.9	7.8	37.4	16.2	7.7	27.9	16.1	5.2	41.3	14.5	12.7	44.0	21.4	11.6	40.2	19.2
	SO2	0	6.5	2.6	4.2	11.7	7.8	3.0	8.4	5.2	0	5.8	2.6	13.1	26.0	18.2	1.6	6.6	3.7	0	6.7	3.0	3.1	12.0	6.6	2.6	8.0	6.9
SEPT.	SM	2.8	29.8	14.5	16.1	65.2	35.5	9.8	36.2	19.9	0	25.8	12.5	10.5	36.1	21.1	8.3	32.2	16.4	8.0	38.6	18.5	12.9	38.9	24.8	10.3	38.6	19.1
	SO2	0	9.4	3.9	5.2	14 1	9.1	3.3	10.6	5.3	0	8 3	3.4	10.7	32 9	19.4	1.1	6.6	3.7	0	11.0	4.0	2.7	15.8	8.4	3.2	10.5	5.4

APPENDIX 5

Annual Minima, Maxima and Average Smoke and Sulphur Dioxide Pollution for each Station

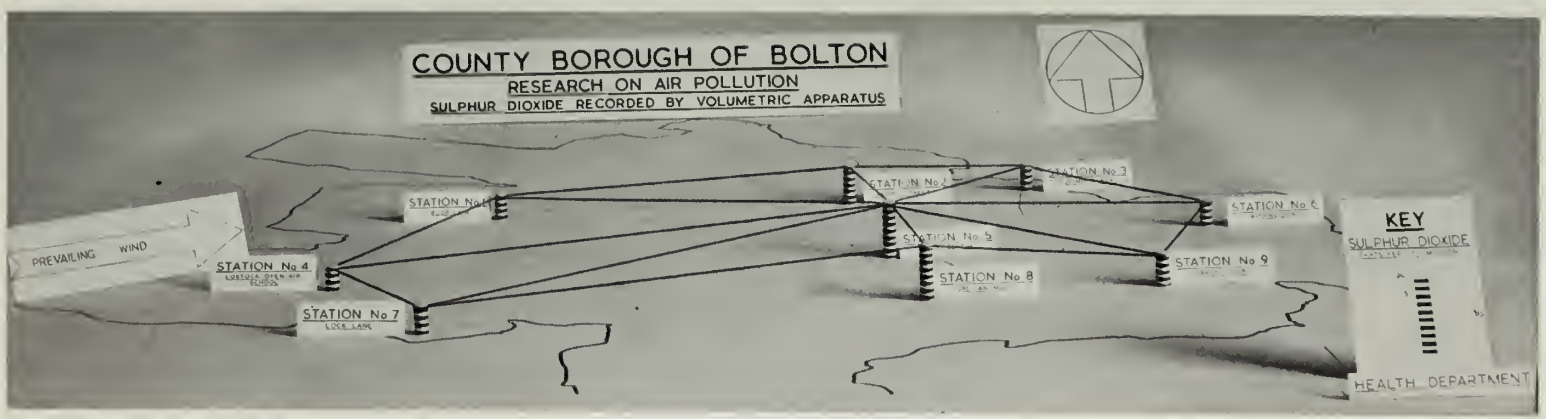
	Annual Average Minimum		Annual Average Maximum		Annual Station Average	
	Smoke	SO_2	Smoke	SO_2	Smoke	SO_2
1	4·46	0·608	55·4	14·9	21·0	4·9
2	23·5	3·80	90·0	23·3	46·3	10·5
3	12·8	2·85	69·7	18·8	30·5	7·4
4	3·4	0·85	53·1	14·7	18·9	7·5
5	9·1	6·65	62·1	29·0	26·7	14·8
6	12·3	2·06	63·2	16·2	28·1	6·67
7	5·91	0·63	67·3	18·8	25·1	6·21
8	18·1	4·61	80·8	27·7	34·3	12·2
9	15·0	3·56	71·5	16·7	32·7	8·54

Period 1st October, 1957
to 30th September, 1958

COUNTY BOROUGH OF BOLTON

RESEARCH ON AIR POLLUTION

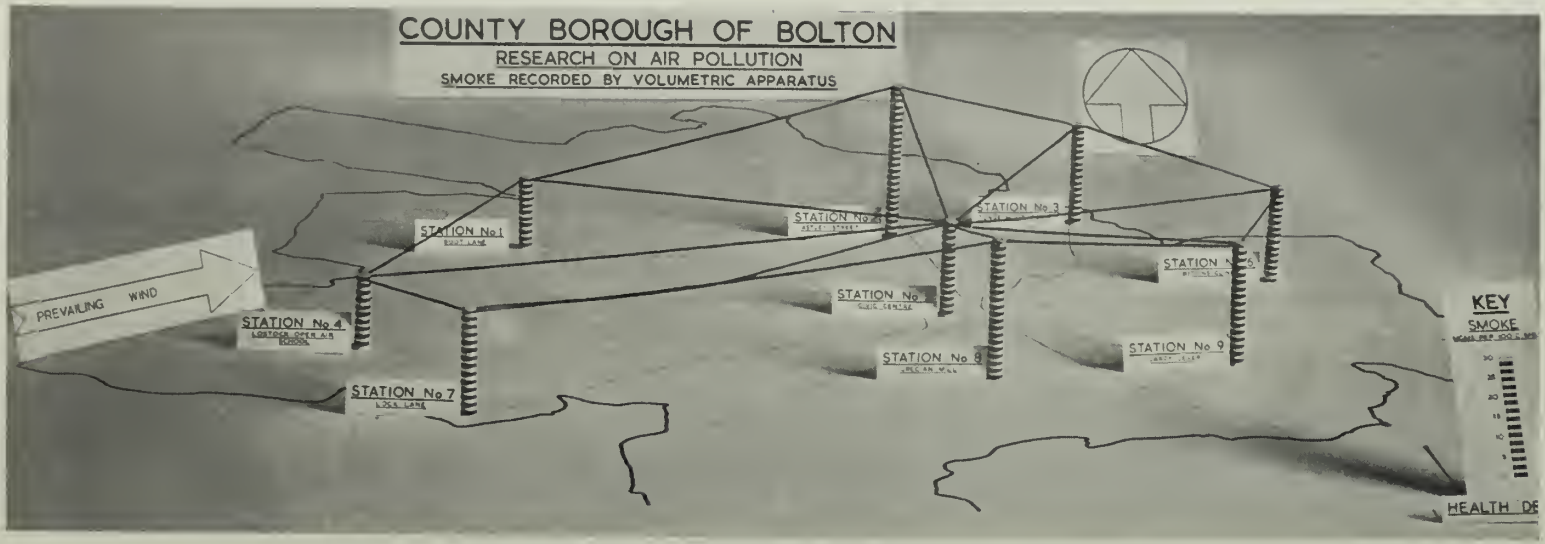
SULPHUR DIOXIDE RECORDED BY VOLUMETRIC APPARATUS



COUNTY BOROUGH OF BOLTON

RESEARCH ON AIR POLLUTION

SMOKE RECORDED BY VOLUMETRIC APPARATUS



PART V

ADDITIONAL INFORMATION

Medical Examination of Corporation Employees

National Assistance Act, 1948—Section 47
Persons in need of Care and Attention

The Incidence of Blindness, Epilepsy and Cerebral Palsy

Work done on behalf of the Children's Committee

Care of Children Co-ordinating Committee
Problem Families

Nursing Homes

Cremation

Rehousing on General Medical Grounds

Baths and Wash-houses

Meteorological Summary

MEDICAL EXAMINATION OF CORPORATION EMPLOYEES

During the year 1,277 examinations were carried out involving 1,254 persons. A summary of these is shown in the following table:—

Examination for—	No. of persons examined		No. of persons found unfit	
	Males	Females	Males	Females
Entry into Superannuation Scheme	415	138	13	2
Entry into Sickness Payment Scheme	148	231	11	7
Other medicals, e.g., Fitness to resume employment	5	–	–	–
Retirement on medical grounds	8	4	–	–
Fitness to be employed as a teacher	63	47	–	1
Fitness for admission to a Training College	35	38	–	–
Fitness to teach after leaving the Bolton Technical Training College	104	28	–	–
Medical examinations carried out at the request of other Local Authorities	12	1	–	–
TOTALS	790	487	24	10

Of the above there were 11 incomplete examinations, i.e. where it was found that a decision had to be deferred and the persons concerned were requested to attend for a further medical examination.

Of the eight males examined for retirement on medical grounds two were subsequently found to be unfit.

Two hundred and sixty-one persons were sent to mass radiography units, 78 because their employment involved working with children, 45 because they were training college students or were awaiting admission to a training college and the remainder at the request of the examining medical officer. One person was sent for X-ray at the request of Cumberland County Council.

Candidates to drive public service vehicles must have a high standard of physical fitness, in the interests of public safety. At medical examinations, special regard is paid to their eyesight, including visual fields and colour vision, in addition to other systems.

The number of actual and potential public service vehicle drivers examined during the year was 187. 166 (88.8%) of these were considered to be fit to drive, and 21 (11.2%) were considered to be unfit to drive.

Conditions which caused persons to be found unfit for driving:—

HEARING	DEFECTIVE VISION	OLD POLIO CASE	OTHERS
3	12	1	5

An analysis of the conditions which caused persons examined for entry into the Superannuation and Sickness Payments Schemes to be found unfit is shown in the following table.

	Superannuation Scheme		Sickness Payment Scheme	
	Males	Females	Males	Females
Cardiovascular disease (including hypertension)	3	2	4	5
Endocrine System	–	1	–	–
Alimentary System	2	–	–	1
Respiratory System	4	–	4	–
Hernia	2	–	–	–
Nervous System	2	–	1	1
Varicose Veins	–	–	2	–
TOTALS	13	3	11	7

NATIONAL ASSISTANCE ACT, 1948—SECTION 47 PERSONS IN NEED OF CARE AND ATTENTION

One person was removed to an institution under the provisions of Section 47 of the National Assistance Act, 1948 (as amended), which gives powers to remove to hospital or Part III accommodation persons suffering from grave chronic disease, or being aged and infirm and living in insanitary conditions, who are not able to devote to themselves, or are not receiving, proper care and attention.

The Chief Welfare Officer drew our attention to this case. She was a frail old lady living in very dirty conditions.

After full consideration, action was taken to have her removed. She soon settled down in hospital and later consented voluntarily to remain in Welfare accommodation.

THE INCIDENCE OF BLINDNESS, EPILEPSY AND CEREBRAL PALSY

Blindness:

The Register of Blind Persons contained the names of 226 men and 277 women at the end of the year.

In addition, 13 men and 47 women were registered as partially sighted.

The ophthalmic surgeons completed a total of 68 forms B.D.8 during the year.

The following table shows the age and sex distribution of the persons examined by the ophthalmic surgeons who completed the forms B.D.8.

Age at Onset of Blindness

	Congenital	0-15	15-30	30-45	45-60	60-65	65-70	70-75	75-80	80-85	85-90	90-100	Unspecified	Total
Males ..	3	2	1	1	4	4	3	2	2	–	–	–	2	24
Females ..	7	–	1	3	6	4	6	6	6	3	–	–	2	44

Age in 1958

	0-15	15-30	30-45	45-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	Total
Males ..	3	–	2	5	1	–	3	4	2	4	–	–	24
Females	5	2	–	2	3	2	8	9	7	4	2	–	44

A further analysis of these cases shows the following conditions to be present in the 68 cases examined:—

Conditions	Males' Eyes	Females' Eyes
Full Cataract	5	10
Cataract	6	9
Incipient Cataract	5	11
Cataract—Secondary Glaucoma	1	–
Congenital Cataract	2	–
Congenital Cataract—Aphakia	–	2
Aphakia	5	2
Aphakia—Macular degeneration	–	3
Aphakia—Early Retinal changes	2	–
Aphakia—Thickened Capsule	–	1
Aphakia—Secondary Glaucoma	–	1
Glaucoma	4	6
Glaucoma—Secondary Cataract	–	2
Old Plastic Iritis—Secondary Cataract ...	2	2
Retinitis—Incipient Cataract	–	4
Retinitis—Pigmentosa	2	–
Retinitis	–	4
Myopia	–	8
High Myopia—Incipient Cataract	–	2
Absent	–	1
Old Injury—Secondary Cataract	1	–
Phthisis Bulbae	1	–
Macular degeneration	2	2
Optic Atrophy—Macular Choroiditis	–	2
Corneal scars—Secondary Cataract	1	–
Corneal scars—Disc cupped...	1	–
Leucoma	–	1
Gaze Palsy	2	–
Detached Retina	–	1
Normal	2	1
Macular degeneration—Incipient Aphakia...	–	2

Conditions	Males' Eyes	Females' Eyes
Eviscerated — Panophthalmitis — Herpes Ophthalmicus	–	1
Early Lens changes	–	2
Left Hemianopia	–	2
Retrolental Fibroplasia	–	2
Optic Atrophy—Oedema of Retina	2	–
Optic Atrophy	–	2
Lacking Pigment—Concom Strabismus	–	2
Amblyopia—Optic Atrophy—?Cerebral	2	–

Visitors from the Welfare Department carried out follow-up work in respect of newly ascertained cases. In addition, a health visitor called on each new patient and each new case under review in order to ensure that help could be given to the patient to ensure that any treatment which was recommended was carried out.

Two blind children were examined. In one the cause was primary optic atrophy, and in the other amblyopia complicated by optic atrophy.

Analysis of Form B.D.8 Recommendations

	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
Number of cases registered during the year in respect of which there was recommended—				
No Treatment	1	–	1	10
Treatment (medical, surgical or optical)	10 surgical 1 optical			3 medical 1 surgical 3 optical
Hospital Supervision	15	6	–	17
Total	68 cases			

At the end of the year 5 blind and 10 partially sighted children were receiving special educational treatment in boarding schools, and 4 children (3 blind and 1 partially sighted) were awaiting placement in special schools.

Epilepsy:

The Chief Welfare Officer states that the Register of Handicapped Persons contained the names of 17 men and 13 women suffering from epilepsy. Of these—

2 men and 2 women were in residential accommodation provided by Bolton Corporation
8 men and 4 women were in colonies for the epileptic
2 men and 2 women were in homes provided by other local authorities
5 men and 5 women were at home.

The local education authority knew of 44 boys and 28 girls attending ordinary schools who were epileptic, and maintained one boy and 5 girls in special schools. In addition, two children received the services of home teachers.

Cerebral Palsy:

Only one person suffering from cerebral palsy was on the Register of Handicapped Persons maintained by the Chief Welfare Officer.

The local education authority were aware of 26 children with this handicap. Disposal of these children is as follows:—

	Boys	Girls
Attending Birtenshaw Hall Special School	6	5
Awaiting admission to Residential Special School for physically handicapped	1	–
Attending special school for the deaf	1	1
Attending special school for educationally subnormal ...	1	1
Attending special school for maladjusted	–	1
Attending ordinary schools...	4	2
Receiving home tuition	–	1
Not at school—pre-school children	–	2
Totals	13	13

Of the mental defectives known to the authority, 12 were suffering from cerebral palsy in addition to the mental handicap.

The special school for spastic children at Birtenshaw Hall which opened at the end of 1956 continued to play a most useful part in accommodating spastic children from Bolton. Most of the day children attending the school live in the county borough.

Facilities available for Handicapped Persons:

The welfare of handicapped persons over school age is the responsibility of the Welfare Department, and from the age of two years up to school leaving age it is the responsibility of the Education Authority.

The Health Department, although having no direct responsibilities, co-operates closely with these two departments.

The Chief Welfare Officer states—

> "During December, 1958, the Social Centre for Handicapped Persons, situated in the Margaret Greg Workshop, Woodlands, Manchester Road, Bolton, was opened and it is hoped that during the course of the present year the facilities provided for handicapped persons will be improved, with particular reference to social activities. It is also anticipated that suitable handicapped persons will be given instruction in woodwork, etc."

WORK DONE ON BEHALF OF THE CHILDREN'S COMMITTEE

The Health Department was responsible for the routine medical supervision of children in the care of the Local Authority.

Children for admission, discharge, or for boarding-out were examined by the medical officer on duty. In addition all the children "in care" had routine medical examinations at intervals laid down by the Boarding-out Regulations. The Regulations specify monthly examinations for children under one year, six monthly or yearly examinations for older children depending on whether they are in Family Homes, or boarded-out with foster parents.

A medical officer attended the Elizabeth Ashmore Nursery each month to perform routine examinations, and also visited Family Homes, accompanied by a health visitor, to examine the older children.

A special report to the Children's Committee was issued once a quarter by the Medical Officer of Health.

Medical Examinations:

No. of children examined on admission to Homes	127
No. of children examined on discharge from Homes	65
No. of examinations made for the purpose of boarding-out	16
No. of routine examinations: 0–1 year	75
1–5 years	86
over 5 years	210
TOTAL	579

Nutritional Status:

Only one of the 210 children over the age of five years having routine medical examination was found to be unsatisfactory in this respect.

Classification of Defects found on Medical Examination:

No. of defects of Teeth	19
,, ,, ,, ,, Skin	13
,, ,, ,, ,, Eyes	38
,, ,, ,, ,, Ears	17
,, ,, ,, ,, Nose and Throat	15
,, ,, ,, ,, Speech	1
,, ,, ,, ,, Cervical Glands	1
,, ,, ,, ,, Heart	3
,, ,, ,, ,, Lungs	6
,, ,, ,, ,, Abdomen	3
Presence of Anaemia	2
No. found to have a Hernia	3
No. of Orthopaedic defects	4
Defects of Nervous System	5
Psychological defects	8
Enuresis	11
TOTAL NO. OF DEFECTS ASCERTAINED	149

Of the 371 children who had routine medical examinations, 125 (33.7%) were found to have one or more defect. Eleven children were referred for a consultant opinion, and 8 children were referred to family doctors for treatment.

CARE OF CHILDREN CO-ORDINATING COMMITTEE PROBLEM FAMILIES

I am grateful to Mr. P. E. Varey, Children's Officer, for supplying the following information:—

Quarterly meetings of this Committee have continued to be held under the chairmanship of the Medical Officer of Health. They are attended by senior officers of each of the departments of the Corporation concerned with the health and welfare of children in their own homes, by the Area Officers of the National Assistance Board, and by representatives of voluntary organisations in the town who are concerned with this problem. These quarterly meetings consider policy on the co-ordination of the services and review the work of the monthly Case Conferences.

The Case Conferences are held under the chairmanship of the Children's Officer and are attended by representatives of Corporation departments, statutory bodies and voluntary organisations most intimately connected with the neglect of children in the town. Wherever it is thought necessary, discussion takes place aimed at safeguarding the interests of the children, and individual members of the Committee are asked to make their own contribution to the needs of the case.

During the year a total of 52 families involving 219 children were the subject of consideration, of which 20 families involving 86 children were newly reported cases.

Of these—

16 families (73 children) were considered to have improved or their needs to have been met to such an extent as to justify their deletion from the register

1 family involving 3 children had left the town

4 families involving 14 children were removed from the register when the children had been received into the care of the Local Authority and there was no direct likelihood of rehabilitation

31 families involving 129 children remained on the list, although in several cases encouraging progress was reported.

NURSING HOMES

The two nursing homes of 27 and 24 beds respectively registered under Section 187 of the Public Health Act, 1936, continued satisfactorily.

CREMATION

The 'Overdale' Crematorium has now completed four full years of operation. The details are as follows:—

Year	Number of Bolton Residents Cremated	Cremation of persons from other areas	Total Cremations	Approx. % of deaths of Bolton Residents who were cremated
1955	659	774	1,433	28%
1956	745	1,041	1,786	34%
1957	807	1,028	1,835	36%
1958	**861**	**1,071**	**1,932**	**40%**

The gradual increase in the number of cremations and in the proportion of deceased Bolton residents who were cremated indicates that this method of disposal of remains has much to commend it.

The Medical Officer of Health, the Deputy Medical Officer of Health and an Assistant Medical Officer, have acted as Medical Referee and Deputy Medical Referees respectively, and no major difficulties have been encountered. However, the lack of a list of medical practitioners who are on the Temporary Register sometimes leads to difficulty in checking the qualifications of doctors from Commonwealth countries.

REHOUSING ON GENERAL MEDICAL GROUNDS

A total of 112 applications was received for special consideration for rehousing on medical grounds. One hundred and two of these applications were supported by a recommendation from the family doctor.

In each case where there was a medical recommendation from the general practitioner the health visitor reported on the housing conditions and social needs of the family. On a few occasions the public health inspector reported on the housing conditions where it was felt that these were due to structural defects or disrepair, and his report, together with that of the health visitor and the family doctor, was taken into consideration in deciding whether, on medical grounds, rehousing should be recommended.

Many of the medical recommendations concerned people who were having difficulty with stairs, the difficulty being either due to breathlessness from respiratory or cardiac disabilities, or arthritis, or an orthopaedic disability. In a considerable number of cases where a medical recommendation was made, in addition to the medical disorder present there was also substantial disrepair and lack of facilities in the house in which the patient lived. In any case where it was felt that the difficulties could be met by carrying out repairs to the house, this action was arranged by the public health inspectors.

Amongst the 39 families recommended for rehousing on medical grounds the disabilities present were as follows:—

Respiratory diseases...	10
Osteo-arthritis and rheumatoid arthritis	6
Diseases of the heart and circulation	4
Children with disabilities	5
Nervous diseases	5
Amputation of legs	2
Other diseases	5

In some cases more than one member of the family was disabled.

Of the children concerned, two in one family had had repeated attacks of rheumatic fever and were living in a damp house; one child had subacute rheumatism and was living in a damp house; two children had chronic asthma; one was a spastic child who was blind.

The Housing Committee made a total allocation of 50 houses for persons requiring rehousing on medical grounds, including tuberculosis, and 39 persons were rehoused during the year. Of these, 11 had been recommended in 1957, and of the remaining 28, 20 were rehoused on general medical grounds and 8 on grounds of tuberculosis.

Rehousing of persons on grounds of tuberculosis is dealt with separately under 'Tuberculosis.'

In four cases where rehousing was not recommended, two houses were in a proposed clearance area; one house was to be dealt with as an individual unfit house; one house was to be dealt with under a Compulsory Purchase Order. In all these cases the applicants would be rehoused under these schemes.

Fourteen applicants already living in Corporation houses were recommended for transfer to accommodation more suited to their need.

BATHS AND WASH-HOUSES

There was no change in the pattern of administration of the Baths Service. The various establishments offered the following facilities:—

BATHS:

High Street	1 Plunge 9 Slipper Baths
Bridgeman Street... ...	2 Plunges 25 Slipper Baths
Moss Street	2 Plunges 18 Slipper Baths
Hennon Street	23 Slipper Baths 1 Shower Bath
Rothwell Street	15 Slipper Baths
Great Moor Street ...	Turkish Baths

WASH-HOUSES:

Moss Street	6 Electric Rotary Washing Machines 12 Hand-washing Stalls 1 Coin-slot Ironing Machine
Rothwell Street	12 Electric Rotary Washing Machines 18 Hand-washing Stalls 1 Coin-slot Ironing Machine

The attendances at the various establishments during the last three years are compared below:—

	Swimming Plunges			Slipper Baths			Wash-houses		
	1958	1957	1956	**1958**	1957	1956	**1958**	1957	1956
High St. Baths	**64,196**	59,735	58,498	**15,717**	17,112	17,132			
Bridgeman St. Baths.. ..	**128,125**	123,241	110,323	**38,470**	38,241	36,111			
Moss St. Baths and Wash-houses ..	**121,769**	81,956	100,433	**35,393**	35,228	36,170	**24,938**	24,669	22,570
Hennon St. Baths.. ..				**19,100**	21,912	19,562			
Rothwell St. Wash-houses				**18,365**	15,944	16,638	**42,149**	34,094	42,963
TOTALS ..	**314,090**	264,932	269,254	**127,045**	128,437	125,613	**67,087**	58,763	65,533

TURKISH BATHS:

Attendances at the Turkish Baths again increased and for the last three years were as follows:—

YEAR	ATTENDANCES
1956	6,991
1957	7,693
1958	**7,711**

The apparent increase in swimming attendances was due, to some extent, to the closing of Moss Street Baths for five weeks in 1957 and to the epidemic of Asian Influenza during that year which resulted in a decrease in the numbers of school children attending in organised parties. The attendances of children from Bolton schools were 50,213 compared with 37,109 in 1957. The attendances of children from Lancashire Education Authority schools were 3,294 compared with 2,728 in 1959.

Each year 150 passes which entitle the holders to a year's free swimming are awarded by the Health Committee to school children who pass the tests set by the Bolton Scholarship Scheme for the Encouragement of Swimming. In addition, citizens of Bolton who pass the examination for the bronze medallion of the Royal Life Saving Society are also awarded passes which entitle the holders to a year's free swimming. To this latter group 140 passes were awarded compared with 105 in 1957. The figures given in the tables include attendances by free pass holders and school children.

Fourteen swimming clubs took advantage of the facilities for after-hours swimming and the promotion of water polo matches. In addition to the Bolton Swimming Club and the Bolton Bridgeman Swimming Club the baths are used by clubs from local industries, youth organisations and schools, and one which specialises in giving swimming instruction to adults. Twenty-two swimming galas were held by various organisations during the year.

There was a slight decrease in the number of persons using the slipper baths. There should be a tendency for the decline to continue as the slum clearance schemes progress and tenants are transferred to modern houses.

At the wash-houses the 1958 figures should be compared with those of 1956 as Rothwell Street wash-house was closed for two months during 1957. There is little likelihood of any major increase in attendances until more washing machines are introduced. The coin-slot ironing machines at Moss Street and Rothwell Street wash-houses were used 49,112 times and 62,218 times respectively. These are the highest figures recorded since the machines were installed. The later evening sessions at both wash-houses which started in 1955 continued and were well attended.

The popularity of the swimming plunges, the slipper baths and the Turkish baths has been maintained or even increased.

METEOROLOGICAL SUMMARY, 1958

Compiled at Queen's Park Observatory by A. Hazelwood, Esq.

1958	Barometer	Mean Relative Humidity	Estimated Average of Maximum and Minimum Temperature	Absolute extremes of Temperature				Sunshine			Total Rainfall
				Highest	Date	Lowest	Date	Total Amount	Maximum in one day	Date	
	Inches	%	°F.	°F.		°F.		Hours	Hours		Inches
January	29·816	89	36·5	55	27, 28	12	23	31·7	6·8	12	4·468
February	29·829	89	39·0	53	14	24	7	48·9	9·0	26	8·098
March	29·846	81	38·5	56	30	22	9	114·2	8·8	6	2·354
April	30·091	71	45·0	68	30	29	2, 4, 12	129·1	11·6	12	1·531
May	29·886	80	51·0	73	1	37	7	142·1	11·1	20	4·059
June	29·928	82	55·5	75	29	42	25	130·3	12·5	15	5·142
July	29·901	82	60·0	78	19	41	25	126·6	12·2	14	4·106
August	29·846	87	60·5	77	10	42	24	122·9	10·1	7	4·480
September	30·026	85	59·0	77	2	42	27	95·0	10·4	10	4·421
October	30·090	89	51·5	63	4	36	11, 18	72·5	7·4	12	4·209
November	30·185	91	44·0	58	3	31	27	33·6	7·1	10	1·807
December	29·657	89	40·5	55	28	25	15	22·0	4·7	5	4·024
TOTALS	359·101	1015	581·0					1068·9			48·699
Monthly Average	29·925	85	48·4					89·1			4·058

Rainfall: Average 1887 to 1958 = 43·485″

COUNTY BOROUGH OF BOLTON

EDUCATION COMMITTEE

ANNUAL REPORT

OF THE

Principal School Medical Officer

FOR THE YEAR 1958

RONALD W. ELLIOTT, M.D., M.Sc., D.P.H.,
Principal School Medical Officer

H 8421

SPECIAL SERVICES SUB-COMMITTEE

Municipal Year 1958-1959

His Worship the Mayor
(Alderman Mrs. E. A. Ashmore, J.P.)

Alderman Mrs. H. Wright, J.P. (*Chairman*)

Councillor Mrs. A. G. Hopewell (*Vice-Chairman*)

Alderman F. Bentley, J.P. (Died 21.1.59)

Alderman P. Flanagan, J.P.

Councillor Mrs. D. Berry

Councillor Mrs. E. Bocock

Councillor W. Greenhalgh (Died 21.9.58)

Councillor R. L. Howarth

Councillor G. Haslam

Councillor Mrs. E. M. Ryley

Councillor A. Townend

Councillor Mrs. N. Vickers

Mr. A. Howcroft (*Co-opted Member*)

Mr. T. Williams „ „

STAFF OF THE SCHOOL HEALTH SERVICE

Principal School Medical Officer	Dr. Ronald W. Elliott	
Deputy Principal School Medical Officer	Dr. Reginald D. Haigh	
School Medical Officers	Dr. Godfrey C. Galea	
	Dr. Rosa M. Galloway	(Resigned 30.9.58)
	Dr. Geoffrey A. Levell	
	Dr. Margaret T. McCaffrey	
	Dr. Eve M. Mawdsley	
	Dr. Audrey Seddon	(Part-time)
	Dr. Beryl L. Sephton	(Part-time) (Commenced 1.10.58)
	Dr. Mavis J. Allanson	(Part-time) (Commenced 1.10.58)

School Medical Officers worked part-time in both the Maternity and Child Welfare and School Health Services, and were appointed as Assistant Medical Officers of Health and School Medical Officers.

Ophthalmic Surgeons	Dr. J. Ratcliffe	(Part-time)
	Dr. J. Morrison	(Part-time)
Ear, Nose and Throat Surgeon	Mr. G. G. Mowat	(Part-time)
Principal School Dental Officer	Dr. Donald Davies	(Resigned 31.10.58)
	Mr. A. E. Shaw	(Commenced 1.12.58)
School Dental Officers	Mr. Stanley J. Bray	
	Mrs. Joyce O. Burton	(Part-time)
	Mr. Ian H. Thom	(Part-time) (Resigned 19.12.58)
	Mr. James J. Corrigan	(Part-time) (Commenced 28.4.58)
	Mr. Martin R. Annis	(Part-time) (Commenced 2.6.58)
	Mrs. Mary R. McKenna	(Part-time) (Commenced 26.8.58)
	Mr. Ian G. Black	(Commenced 5.8.58)
Dental Anaesthetists	Mr. J. Besant-Davies	(Part-time) (Resigned 30.9.58)
	Dr. Elizabeth Mitchell	(Part-time)
Psychiatrist	Dr. Elizabeth Berndt	(Part-time)
Educational Psychologist	Miss M. P. Joyce	(Resigned 31.12.58)
Social Worker	Mrs. L. O. Green	
Speech Therapists	Mrs. F. Barber	
	Miss H. Jenkins	(Resigned 31.8.58)
	Miss A. M. Kelly	(Commenced 1.9.58)
Chiropodist	Miss A. C. Drury	(Part-time)
Superintendent Nursing Officer	Miss M. Davies	(Resigned 11.4.58)
	Miss E. M. Richardson	(Commenced 1.8.58)
Deputy Superintendent Health Visitor and School Nurse	Miss J. MacEachern	(Resigned 14.1.58)
	Miss A. M. Fraser	(Commenced 6.2.58)

NURSING STAFF

On the 31st December, 3 full-time School Nurses, and 29 Health Visitors and one Clinic Nurse working part-time on School Health and part-time on Maternity and Child Welfare work—the equivalent of 11 full-time School Nurses.

The Superintendent Nursing Officer supervised the work of the staff and was assisted by the Deputy Superintendent Health Visitor and School Nurse.

DENTAL ATTENDANTS

There were 6 dental attendants employed on the 31st December.

TABLE OF CONTENTS

Health Department,
Civic Centre,
Bolton.

June, 1959

To the Chairman and Members of the Special Services Sub-Committee of the Bolton Education Committee.

Throughout 1958 the work of the School Health Service was administered by my predecessor. I am therefore in a position to look objectively at the work of this service.

In spite of the changes that have happened in the medical services of this country since the coming into operation of the National Health Service Act, 1946, the School Health Service continues to have a most important part to play in the medical care of school children and in ensuring their fitness for education. This usefulness is clearly shown in this report which indicates the comprehensive service provided for the care of the school child in Bolton.

The value of the periodic inspections is particularly indicated by the fact that of 1,800 odd school entrants examined, more than 400 required treatment (22.2 per cent).

The excellent work undertaken at the specialist clinics is shown. In this connection it is worth mentioning the very excellent co-operation that exists between the department and the consultants—both those in charge of clinics and those in hospitals, and with the general practitioners. The relationship is a happy one and ensures that the children receive care and treatment from whichever source is most suitable.

The extension of the chiropody service from one to two sessions weekly has been well worthwhile and reduced the waiting list.

Unfortunately, there has been a slight increase in the incidence of dirty heads. Some of this increase may be only an apparent one due to an increased number of inspections. The subject is fully dealt with in the report.

The very good general condition of school children is interesting, only 32 (0.46 per cent) being considered unsatisfactory by the examining medical officers—a most satisfactory position.

Immunisation against diphtheria, whooping cough, and poliomyelitis, continued. With approximately two-thirds of the school children immunised against poliomyelitis, and now those between 15 and 26 being vaccinated, there is quite a possibility of the incidence of poliomyelitis being reduced as was that of diphtheria. We must all hope that this will be the case, and meanwhile I would press most emphatically for the vaccination of all those for whom it is available.

The position with regard to dental hygiene is, unfortunately, not such a happy one. As in other authorities there has been difficulty in obtaining staff and over 9,000 out of the 13,000 children examined by the dental officers were found to require treatment.

The importance of infectious diseases among school children has become much less in recent years. During the year, for example, there was no death from these diseases.

A most important part of the work of the School Health Service is ascertaining handicapped pupils and recommending them for special care. The giving of information to Youth Employment Officers about school leavers who are handicapped is also most useful ensuring that they are placed in suitable work.

On behalf of the officers of the department, I should like to thank the Committee and the staff of the Education Department for their helpfulness and co-operation during the year.

A. Ross.

Principal School Medical Officer.

GENERAL INFORMATION

No. of pupils on registers of maintained schools...	25,437
Children attending:	
Nursery Schools	155
Primary Schools	16,094
Secondary Modern Schools	4,339
Secondary Technical Schools	1,849
Secondary Grammar Schools	2,707
Special Schools	293

The number of children attending primary schools included 1,013 children at 34 nursery classes held in 25 of the primary schools.

No. of schools maintained by the Authority	93
Nursery Schools	2
Primary Schools	67
Secondary Schools	21
Special Schools	3

ARRANGEMENTS FOR TREATMENT AND SPECIAL EXAMINATIONS

Minor Ailments:

Consultation and Treatment Sessions—Doctor in Attendance

School Clinic	Day and Time of Commencement	No. of Sessions Weekly
Robert Galloway Clinic, Ward Street.	Tuesday and Thursday, 9.30 a.m.	2
Charles Street Clinic, off Folds Road.	Wednesday, 2.0 p.m. Saturday, 9.30 a.m.	2
The Withins School Clinic, Withins Lane, Breightmet.	Wednesday, 9.30 a.m.	1
Astley Bridge School Clinic, Moss Bank Way.	Thursday, 9.30 a.m.	1

Minor Ailment Treatment Sessions—Nurse only in Attendance

School Clinic	Day and Time of Commencement	No. of Sessions Weekly
Robert Galloway Clinic, Ward Street.	Monday to Saturday, 9.30 a.m.	6
Charles Street Clinic, off Folds Road.	Monday to Friday, 2.0 p.m. Saturday, 9.30 a.m.	6
The Withins School Clinic, Withins Lane, Breightmet.	Monday, Wednesday and Friday, 9.30 a.m.	3
Astley Bridge School Clinic, Moss Bank Way.	Tuesday and Thursday, 9.30 a.m.	2

Treatment Centres with only a school nurse in attendance were conducted at the following schools:—

Brownlow Fold...	...	Thursday morning
Gaskell Street ...	...	Wednesday afternoon
Whitecroft Road	...	Wednesday morning

Dental Surgeries:

Six dental surgeries were in operation as follows:—

Robert Galloway Clinic ... ... 2 Surgeries
Monday to Friday, 9.30 a.m. and 2.0 p.m.
and Saturday at 9.30 a.m.

Charles Street School Clinic ... ... 2 Surgeries
Monday to Friday, 9.30 a.m.
and Tuesday at 2.0 p.m.

Astley Bridge School Clinic ... ... 1 Surgery
Re-opened 16th June, 1958.
Monday, Tuesday, Thursday and Friday
at 9.30 a.m.
Tuesday at 2.0 p.m.

The Withins School Clinic ... ... 1 Surgery
Re-opened 26th August, 1958.
Monday, Tuesday, Wednesday and
Thursday at 9.30 a.m.

Aural Clinics:

The Consultant Aural Surgeon attended fortnightly at both the Charles Street School Clinic and the Robert Galloway Clinic to see by appointment school children who were referred by the school medical officers.

Ophthalmic Clinics:

The Consultant Ophthalmic Surgeons attended at the Charles Street and Robert Galloway Clinics for a total of 17 hours per week to examine by appointment children referred by the school medical officers. The Clinics were held as follows:—

		No. of Sessions Weekly
Monday afternoon Wednesday morning Friday morning	at Charles Street School Clinic	3
Monday morning Wednesday afternoon Friday afternoon Saturday morning	at the Robert Galloway Clinic	4

Morning sessions commenced at 9.30 a.m. and
afternoon sessions at 2.0 p.m.

Child Guidance:

The Child Guidance Clinic was held at the Robert Galloway Clinic. Dr. Elizabeth Berndt, the Child Psychiatrist, attended on Monday afternoon, Wednesday morning and Thursday afternoon to see patients by appointment.

Speech Therapy:

Speech Therapy was given at the Robert Galloway Clinic. Two speech therapists were employed full-time throughout the year, and in addition to the work carried out at the clinic the speech therapists undertook sessions at Woodside School and Lostock Open Air School.

Audiometry:

Audiometric testing was carried out on children referred by medical officers and, as a routine, on children with speech defects and apparent backwardness, and also on the seven year age group in primary schools and twelve year age group in secondary schools. Children who failed the test were referred for a pure tone audiogram.

Ultra-Violet Light Treatment:

Facilities for ultra-violet light therapy were available in the Health Department for children who were recommended for this treatment by the school medical officers.

Breathing Exercises:

The physiotherapist in the Health Department gave instruction in breathing exercises to children recommended for this treatment by school medical officers, chest physicians and the consultant paediatrician. She also gave advice on the breathing exercises practised by children attending Lostock Open Air School.

MEDICAL INSPECTION OF SCHOOL CHILDREN

The programme of the routine medical inspection of school children continued as in previous years. Three inspections are carried out during the school life of each child—one on entry to school, one in the last year at primary school, and one in the last year of attendance at a secondary school.

Special examinations were carried out whenever defects found at routine examinations were felt to require review at an earlier date than the next routine inspection.

Periodic Medical Examinations

Number of children examined in the above groups:

Entrants	1,830
Primary School Leavers	2,721
Senior Leavers	1,987
TOTAL	6,538
Additional periodic examinations (including Nursery and Special Schools)	408
GRAND TOTAL	6,946

Other Examinations

Special examinations	8,596
Re-inspections	9,916
TOTAL	18,512

RESULT OF INSPECTIONS

Periodic Inspections

The number of defects requiring treatment found at periodic examinations was 1,358, compared with 1,447 in 1957. The slight decrease in the total number of defects found is explained by the decrease in the number of routine inspections in 1958. In 1957, 7,220 routine inspections were carried out, and in 1958 the number was 6,946.

Defect or Disease	Periodic Inspections						TOTAL	
	Entrants		Leavers		Others			
	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation
Skin	33	41	60	46	59	73	152	160
Eyes:								
a. Vision	66	488	178	408	283	532	527	1,428
b. Squint	21	44	7	30	10	54	38	128
c. Other	3	6	5	12	4	22	12	40
Ears:								
a. Hearing	22	108	15	51	37	113	74	272
b. Otitis Media	15	50	12	47	13	61	40	158
c. Other	4	15	6	5	19	20	29	40
Nose and Throat	111	244	11	92	72	273	194	609
Speech	17	66	1	6	9	127	27	199
Lymphatic Glands	14	162	–	30	2	124	16	316
Heart	3	24	2	39	2	34	7	97
Lungs	36	120	3	45	20	73	59	238
Developmental:								
a. Hernia	5	8	–	4	8	10	13	22
b. Other	12	85	3	14	7	82	22	181
Orthopaedic:								
a. Posture	3	13	4	15	1	45	8	73
b. Feet	11	33	8	32	3	39	22	104
c. Other	4	51	13	58	14	117	31	226
Nervous System:								
a. Epilepsy	–	7	–	7	–	20	–	34
b. Other	1	8	5	2	5	24	11	34
Psychological:								
a. Development	1	13	1	2	2	33	4	48
b. Stability	5	41	1	15	5	65	11	121
Abdomen	3	23	1	7	2	11	6	41
Other	21	13	5	20	29	25	55	58
TOTALS	411	1,663	341	987	606	1,977	1,358	4,627

Special Inspections

The following table shows the number of defects found at special inspections.

Defect or Disease	Special Inspections	
	Requiring Treatment	Requiring to be kept under observation
Skin	383	48
Eyes:		
a. Vision	53	68
b. Squint	7	6
c. Other	16	11
Ears:		
a. Hearing	90	92
b. Otitis Media	64	34
c. Other	72	13
Nose and Throat	175	112
Speech	23	10
Lymphatic Glands	8	14
Heart	5	24
Lungs	40	44
Developmental:		
a. Hernia	2	3
b. Other	17	19
Orthopaedic:		
a. Posture	1	7
b. Feet	12	11
c. Other	37	42
Nervous System:		
a. Epilepsy	3	12
b. Other	15	18
Psychological:		
a. Development	10	14
b. Stability	24	36
Abdomen	12	9
Other	113	74
TOTALS	1,182	721

Summary of Pupils found to require Treatment

Age Group Inspected (By year of birth)	For defective vision (excluding squint)	For any of the other conditions recorded in previous table	Total individual pupils
1954 and later	–	33	33
1953	17	94	103
1952	49	170	205
1951	3	18	20
1950	4	5	8
1949	3	3	5
1948	147	154	287
1947	100	100	187
1946	21	14	33
1945	5	3	7
1944	131	142	256
1943 and earlier	47	14	57
TOTALS	527	750	1,201

Presence of Parents at Periodic Medical Inspections:

Age Group Inspected	No. of pupils inspected	No. with parent present
Entrants	1,830	1,603
Primary School Leavers	2,721	1,838
Senior Leavers	1,987	278
Additional periodic inspections (including Nursery and Special Schools)	408	82
TOTALS	6,946	3,801

Visits to the homes of children by school nurses:

The number of home visits paid by school nurses increased from 896 in 1957 to 928 in 1958. In this number were included visits to the homes where children had failed to attend consultant clinics held either by the local education authority or at the hospital; also visits to explain to parents the procedure to be followed to cleanse a child's head which was infested with vermin, or to explain the procedure to members of the family who might also be infested. Visits were also paid when a child was being examined under Section 57 of the Education Act so that an accurate report about the home conditions could be given on Form 2 H.P. and not merely a statement as to the type of house and the number of rooms.

MINOR AILMEMTS

There was a slight decrease in the number of children attending school clinics and treatment centres during the year. 3,005 children attended in 1958, compared with 3,214 in 1957. It is not felt that this is necessarily a continuation of the general decline in numbers, which has been the case in recent years and which appeared to have been halted during 1957. It is possible that an explanation for the smaller attendances is that during 1958 two chiropody sessions were held throughout the year and a large number of children with verrucae and other minor foot troubles attended this clinic who would formerly have attended a minor ailment clinic. Before the chiropody service for school children was established the school nurse carried out the routine treatment of verrucae at the minor ailment clinic, but there is no doubt that a much more satisfactory arrangement is in operation now that the services of a chiropodist are available.

Clinic or Centre	No. of individual children who attended	Children seen by medical officer on first visit	No. of subsequent visits to medical officer	Children seen by nurse on first visit	No. of subsequent visits to nurse	Total No. of Attendances
Robert Galloway..	1,023	635	205	897	2,522	4,259
Charles Street ..	981	529	289	836	2,220	3,874
The Withins ..	420	280	100	366	909	1,655
Astley Bridge ..	258	157	83	93	451	784
Treatment Centres	323	—	—	323	1,004	1,327
TOTALS ..	3,005	1,601	677	2,515	7,106	11,899

The number of visits by children to the treatment centres in schools was as follows:—

Whitecroft Road	376
Gaskell Street	291
Brownlow Fold	660
TOTAL	1,327

NOTES ON SPECIFIC DEFECTS

Diseases of the Skin:

Infective skin diseases continued to occur periodically in schools throughout the year. Nine new cases of scabies were treated and although the incidence of this infestation continues to be low, a few cases still occur each year. Although scabies is not a difficult disease to diagnose, in spite of this children will occasionally attend school for several weeks before a diagnosis is made. It is fortunate, therefore, that scabies is not readily transmissible, otherwise far more cases would occur.

Four cases of ringworm of scalp were discovered in children who were attending primary schools. In each case the child was immediately excluded from school and was referred to the Manchester and Salford Hospital for Skin Diseases where X-ray epilation was carried out. The heads of all the children in the school were examined with Wood's Light, but fortunately no further cases were discovered.

A Wood's Light examination was also carried out whenever a patchy alopaecia was found. It was also used to confirm the presence of nits when ordinary methods of searching had failed to produce a convincing result.

Disease	No. of cases treated or under treatment by the Authority
Ringworm:	
(i) Scalp	4
(ii) Body	2
Scabies	9
Impetigo	39
Other skin diseases	342
TOTAL	396

Impetigo treated in School Clinics:

The number of cases of impetigo treated in school clinics increased slightly compared with last year. The following table gives the figures for the past ten years.

Year	No. of Cases	Year	No. of Cases
1949	71	1954	120
1950	45	1955	76
1951	39	1956	43
1952	51	1957	32
1953	74	**1958**	**39**

Defects of the Ear, Nose and Throat:

At periodic routine medical inspections diseases of the ear, nose and throat were found in a large number of children. Only dental caries and defective vision occurred more commonly.

A total of 787 children underwent an operation for removal of tonsils and adenoids, 7 had operations for diseases of the ear, and 5 for other nose and throat conditions. Two hundred and twenty of these children were seen by the aural surgeon at school clinics and referred to hospital for treatment, and 579 children were referred direct to the hospital by the family doctor.

Treatment

	Number of cases known to have been dealt with
Received operative treatment—	
for diseases of the ear	7
for adenoids and chronic tonsillitis ..	787
for other nose and throat conditions ..	5
Received other forms of treatment ..	156
TOTAL	955

The survey to ascertain the number of children seen at routine medical inspections who had had tonsils and adenoids removed previously, was continued on behalf of the Ministry of Education. Although it is felt that as yet it is too soon to draw any conclusions from the results obtained, the results of the enquiry so far are given below. Undoubtedly this information will be the subject of comment in a future report.

Age Groups Inspected	No. of pupils	No. of children who had previously undergone Tonsillectomy
Entrants:— Years of birth: 1954, 1953, 1952	1,830	130
Primary School Leavers:— Years of birth: 1948, 1947, 1946	2,721	648
Senior Leavers:— Years of birth: 1944, 1943	1,987	443
Additional Periodic Inspections:— Years of birth: 1951, 1950, 1949, 1945	140	12
Special Schools for E.S.N., Deaf and Partially Deaf:— Years of birth: 1954 to 1943	177	25
Nursery Schools:— Years of birth: 1954, 1953	91	—
TOTALS	6,946	1,258

Mr. G. Gordon Mowat, the Consultant Aural Surgeon, reports:—

"**Weekly Aural Clinics:** E.N.T. Clinics have continued throughout the year. Minor degrees of deafness are now detected and early treatment instituted, thus preventing deterioration of hearing later in life.

There are still a lot of chronic discharging ears which require regular treatment, and this is carried out satisfactorily at these clinics.

I would like to take this opportunity of thanking the staff of Charles Street and the Robert Galloway Clinics for their help and co-operation."

Ear, Nose and Throat Clinics

No. of visits by patients	782
No. of patients attending	458
No. of new patients	312
No. of children referred from periodic inspections	138
No. of children referred from school clinics	285
No. of children referred from other sources	35

Children attending the clinics for the first time were seen for the following conditions, which may have been multiple in any particular child:—

Disease or Defect	Referred from			Total
	Periodic Inspection	School Clinics	Other	
Deafness	17	72	14	103
Otitis media	16	44	2	62
Tonsillar abnormalities	17	48	1	66
Tonsil and adenoid abnormalities	51	84	10	145
Adenoid abnormalities	1	7	1	9
Polypus—Ear	–	2	–	2
Catarrhal conditions	13	10	–	23
Sinusitis	1	1	2	4
Speech difficulties	–	5	1	6
Needing antrum puncture R or L	–	–	1	1
Mouth breathing	8	5	1	14
Epistaxis	6	2	1	9
Chronic rhinitis	1	–	–	1
Allergic rhinitis	1	–	–	1
Vasometer rhinitis inf. turbs.	–	1	–	1
Foreign body R nostril	–	–	1	1
Nasal obstruction	2	4	–	6
L. Myringoplasty	1	–	–	1
Nasal discharge	3	2	–	5
Requiring rt. radical mastoidectomy	–	1	–	1
Perforated ear drum	–	1	–	1
Post nasal swelling	–	1	–	1
L. Schwartze mastoidectomy and myringoplasty	1	–	–	1
Totals	139	290	35	464

Five children were recommended for a special school for the deaf or partially deaf. Of these, two were admitted to the Thomasson Memorial Special School during 1958 and two early in January, 1959; another child was awaiting an appointment to see Professor Ewing.

Nine children were recommended for attendance at the lip-reading class. The Aural Surgeon completed prescriptions for hearing aids in respect of four children.

Two boys were referred by the School Medical Officer to Professor Ewing at the Department of Education of the Deaf at Manchester University.

One boy was referred by the Aural Surgeon to a Consultant Plastic Surgeon.

Pure Tone Audiometric Testing for Suspected Deafness:

Pure tone audiometry was used as a method of testing for defects of hearing in school children. Routine examination was carried out in 7 and 12 year olds. All children who were referred for speech therapy or who were suspected of being educationally subnormal were also tested. Also, a few school children were referred by general practitioners who had been consulted by the parents about the child's suspected deafness.

The following table shows the numbers of children in various groups tested in schools and tested at the clinics.

Sweep Testing in Schools

Sources of Children tested	Tested			Failed Test		
	Boys	Girls	Total	Boys	Girls	Total
Ordinary Schools	888	919	1,807	83	86	169
Secondary Modern, Technical, Art and Grammar Schools..	1,217	1,107	2,324	93	86	179
TOTALS	2,105	2,026	4,131	176	172	348

Full Testing at the Clinics

Source of Reference	No. of children referred for test	Awaiting app't for test 1957	App't not kept for test	Result of Audiogram		Unsatisfactory Audiograms and Recommendations				
				Satisfactory	Unsatisfactory	Change of position in class	For observation	Repeat audiogram	Treatment at the clinic	To Aural Surgeon
Failed sweep test in school	348	93	77	146	218	32	93	34	21	38
School Medical Officers ..	132	27	16	39	104	11	42	16	9	26
School Medical Officer on account of speech defects	71	5	9	47	20	1	14	3	1	1
On account of backwardness	25	–	6	6	13	–	12	–	–	1
Others:										
Aural Surgeon	6	1	–	2	5	2	–	–	–	3
Educational Psychologist	1	–	–	–	1	–	1	–	–	–
Headmaster	5	1	–	4	2	–	1	–	–	1
Parent.. ..	11	–	–	4	7	1	6	–	–	–
Family Doctor	3	–	–	2	1	–	–	–	–	1
Paediatrician	1	–	–	–	1	–	–	–	–	1
Repeat Audiograms	67	8	5	28	42	6	22	3	4	7
TOTALS ..	670	135	113	278	414	53	191	56	35	79

The procedure adopted was to give a sweep test (20db. loss at a frequency range of 500 to 6,000 c.p.s.) and recall for a full audiogram those children who failed. Three hundred and forty-eight children who failed the sweep test in 1958, and 93 children who were awaiting appointments in 1957, were invited for full examination. Two hundred and eighteen of these children had an unsatisfactory full audiogram.

In cases where it was felt that a bone conduction audiogram was necessary, these children were referred to the Hearing Aid Centre at the Bolton Royal Infirmary. The number of these examinations is comparatively small.

The number of cases of unsuspected deafness found on routine audiometric examination proves, beyond doubt, the need for this work. It is quite common to find children with an appreciable degree of deafness which was quite unsuspected even by the parents. Children who slowly develop catarrhal deafness over a period of years will often learn to lip-read without anyone being aware that they are understanding speech by lip-reading and not by hearing. In this way, even a moderate degree of deafness may be masked and only routine audiometric examination will ensure that these children are found, their disability treated and the correct educational treatment provided.

Diseases of the Eye:

Altogether, 1,423 children are known to have been dealt with for errors of refraction; of these, 1,357 were seen by the Ophthalmic Surgeons at the school clinics. Total attendances at the clinics numbered 5,331, of which 5,180 were for refraction, repair to glasses and re-examinations, and 151 for diseases of the eye. Four children were referred to the Bolton Royal Infirmary, and a girl was referred to the Contact Lens Department at Moorfields Eye Hospital, London.

In 329 cases spectacles were repaired or replaced.

Twenty children were referred to the Orthoptic Clinic at the Bolton Royal Infirmary for treatment for squint.

Dr. J. Ratcliffe, the Consultant Ophthalmic Surgeon attending at Charles Street Clinic reports:—

> "The work at this clinic has gone along with its usual smoothness, thanks to the nursing and clerical staff.
>
> The amount of refractions is somewhat in the same region as previously, and it is still an astonishing fact that the number of cases of "Inflammation of Eyes" remains particularly low.
>
> Last year, you will remember, we met and discussed the forming of an Orthoptic Clinic. So far as I am aware, this has not materialised, which I regret."

Dr. J. Morrison, the Consultant Ophthalmic Surgeon attending at the Robert Galloway Clinic, reports:—

> "To begin with, thanks are due to all those whose work behind the scenes makes the smooth running of a clinic possible, namely, the medical, nursing, clerical and teaching staffs, and to parents for their attendance and co-operation.

The regular testing of children's eyesight, as carried out by the School Health Service, from the time they enter school until they leave it, is of the utmost importance. Due to this routine many children with gross errors of refraction in one or both eyes, hitherto quite unsuspected by those in contact with them, are brought along for examination and provided with glasses, without which they would not have an equal chance with other children of their own age.

The eye of a child differs from that of an adult in several ways, the chief of which is that it is a growing organ. From birth to adulthood the eye increases in volume just over threefold and is subject to many possible changes during this period of growth. Another difference is that as a child grows up the eyes become less hypermetropic, and thus it is that children who at first need glasses for comfortable close work are, in many instances, able to do without them later.

This is not the whole story; if the original hypermetropia decreases too much the eyes become myopic. Very few children are myopic as babies, and myopia does not often show itself until the ninth or tenth year. Thus, a child may have perfect sight at the age of ten, and at the age of eleven be myopic. Myopia tends to increase until the eyes are fully formed at about eighteen to twenty years of age, so that during the growing period it is advisable for glasses to be worn constantly, not only for comfort but also because the correction provided helps the myopia from getting much worse in most cases. Myopia shows no tendency to decrease.

At the other end of the scale there are many children who have a high degree of hypermetropia, and of these a number develop a squint. If the hypermetropia is excessive it is beyond the child's focusing power to achieve a clear retinal image, so the sight is very poor indeed and the child has not learnt the finer degrees of sight, and it takes a long time for it to learn to make out small details although glasses are provided.

When only one eye is poor-sighted television can be put to very useful purpose if only the child can be persuaded to sacrifice some of its viewing time to the cultivation of the vision of the weaker eye by occluding the view of the better eye. It is daily practice that counts."

Cases of eye disease, defective vision or squint for which treatment was initiated by the school medical officers, may be analysed as follows:—

	Number of cases known to have been dealt with
External and other conditions excluding errors of refraction and squint	52
Errors of refraction (including squint) ..	1,423
TOTAL	1,475
Number of pupils for whom spectacles were prescribed	1,146

The experience in previous years has been similar in nearly all respects to that recorded above.

The following were found at periodic medical inspection to require attention for defects of the eye:—

Defect	Age Groups Inspected				Totals
	Entrants	Primary School Leavers	Senior School Leavers	Additional Periodic Inspections	
Defective Vision..	66	263	175	23	527
Squint	21	9	7	1	38
Blepharitis	1	–	2	–	3
Other	2	3	3	1	9

Orthoptics:

Again I have to report that it was not possible to recruit an orthoptist to do orthoptic work which is so vitally necessary in school children. Children requiring orthoptics have to be referred to the orthoptic clinic at the Bolton Royal Infirmary.

Defective Colour Vision:

Routine colour vision testing was continued for secondary school leavers using the Ishihara colour testing material. Of 34 colour-blind children discovered, 31 were boys and 3 were girls.

Orthopaedic Defects:

One hundred and eleven children were found to have orthopaedic defects, 61 on periodic medical inspection and 50 at school clinics.

Twenty-six children were referred to the Consultant Orthopaedic Surgeon at the Bolton Royal Infirmary for advice and treatment.

Chiropody:

The number of weekly sessions held by the chiropodist at the Robert Galloway Clinic was increased from one to two during 1958. The waiting list has been reduced, and due to the early treatment which is now available the number of cases of multiple plantar warts has been very much reduced. Conservative treatment with salicylic acid ointment correctly applied by the chiropodist has resulted in a much more rapid disappearance of the wart than was the case when the same treatment was applied in the minor ailment clinic.

Miss Anne C. Drury, the Chiropodist attending at the Robert Galloway Clinic, reports:—

> "This year the report covers a full twelve months. Until May the service consisted of one session per week; it was then increased to two, which did much to relieve the then considerable waiting list.
>
> Once again the bulk of patients have been cases of verrucae. Out of 279 children seen, 243 had verrucae, with or without other conditions, and of these 136 were multiple.
>
> Though parents are much more aware of the service there is still a tendency for children not to come for treatment until there is great discomfort, home treatment has failed, or they are referred by a school medical officer. On the other hand, the situation does occur when a long waiting list prevents a child receiving immediate attention.

It is now generally accepted that verrucae are caused by infection with a virus, and I feel the main spread of infection is from communal gym shoes, the swimming baths or other bare-footed activities. Though these activities are essential, it would be most beneficial to foot health if children known to have verrucae could be prevented from taking part in them until treatment can be commenced.

I have also continued to try and press home shoe-fitting and foot hygiene, with very good co-operation of parents in many cases. However, there are some teenagers who would rather suffer agony than come to any sort of terms with their shoes."

The number of children attending, and a summary of the defects treated, are given below:—

	Girls	Boys
No of children who attended for treatment	194	107
Number of **new** patients	179	100
Plantar Warts (Verrucae pedis)	107	
Multiple Cases	136	
General chiropody treatment (corns and callosities), advice, etc.	27	
Ingrowing toe nail (Onychocriptosis)	7	
Athlete's Foot (Tinea pedis)	7	
Onychogryphosis	2	
Hallux Valgus (Bunions)	9	
Chilblains	3	
Pronated feet	3	
Other nail conditions—		
Subungual corns and haematomata	3	
Total number of treatments given	**1,518**	

Cleanliness of School Children:

The standard of children's clothing and footwear, with a few exceptions, continues to be satisfactory.

The general standard of cleanliness of school children is inevitably connected with the general standard of housing. As the standard of housing improves in the town, so will the standard of cleanliness of school children. Where there are good facilities for washing and bathing available in the modern house, then naturally the standard of cleanliness of the children will be much higher.

It is regrettable to have to report that the amount of head infestation increased during 1958. In the five years preceding this year there had been a gradual diminution in the proportion of school children found infested with head lice. As the table below shows, there was a 2% increase in the amount of infestation present. It is a little difficult to be sure of the reasons for this. Routine head inspections were carried out on all children attending maintained schools as before. In fact, more inspections were carried out than in the previous year (50,199 in 1958 as against 42,020 in 1957); 1,907 pupils were found to be infested with vermin or nits, and of this number 1,455 were girls and 452 were boys. It is likely that the increased number of infested children found was due to the increased number of inspections made as the increase in the number of dirty heads found is roughly proportional to the number of inspections made.

	1954	1955	1956	1957	**1958**
School population	24,568	24,869	25,341	25,325	**25,437**
No. of head inspections	50,775	48,885	45,935	42,020	**50,199**
No. of children with nits or vermin..	2,048	1,569	1,471	1,352	**1,907**
Expressed as a percentage of school population	8.3	6.3	5.8	5.3	**7.4**

One wonders whether the increased practice of young girls from the age of nine years having their hair "permed" is not partly responsible for the continuance of vermin infestation, and also for the increase which has been found in the last year. After the "perm" sometimes the hair is not washed for several weeks, and particularly is not combed properly for fear of spoiling the effect. The hair of all school children should be washed at least once each week. There is little doubt that if all school children's hair were washed as frequently as this, head louse infestation would diminish very quickly, even without the use of special disinfestation lotions and shampoos. It is particularly annoying for the parents of children who take particular care about cleanliness and hair washing to find that their child has become infested from a school fellow in spite of all the parents' care and attention to prevent this. There is little that can be done to prevent this, however, but if all parents followed the simple precautions about frequent hair washing as given above, this annoyance would be avoided. Lice and fleas flee before soap and water, if used sufficiently often.

There is no difficulty in detecting the presence of nits or vermin, and facilities for treatment are available free of charge through the School Health Service. The parent needs to pay a few shillings only if a fine tooth comb is considered necessary by the school nurse. If, due to illness of the mother or other similar circumstances, there is no person in the home to treat the child for lice, she may be treated at the School Hill Cleansing Station where both male and female staff are available. During the year 213 children—49 boys and 174 girls—attended for vermin disinfestation or bodily cleansing.

Notices to Cleanse were issued under Section 54(2) of the Education Act in 44 cases, compared with 30 in 1957. Two Cleansing Orders were issued. School nurses paid numerous home visits to explain to parents the technique of cleansing.

THE GENERAL CONDITION OF SCHOOL CHILDREN

Result of Routine Medical Inspection:

At the routine medical inspections the school medical officer concludes his medical report with a statement on the child's general condition, whether satisfactory or unsatisfactory. This classification, which was adopted nationally from the 1st January, 1956, has the merits of simplicity and practicability.

Of the 6,946 children examined at periodic inspections 6,914 (99.53%) were satisfactory, and only 32 (0.46%) were unsatisfactory, a very small percentage indeed. Details are given in the following table.

Age Groups Inspected (By year of birth)	No. of Pupils inspected	Physical Condition of Pupils Inspected			
		Satisfactory		Unsatisfactory	
		No.	% of Col. (2)	No.	% of Col. (2)
(1)	(2)	(3)	(4)	(5)	(6)
1954 and later	357	356	99·72	1	0·28
1953	572	571	99·82	1	0·17
1952	1,005	999	99·40	6	0·59
1951	92	91	98·91	1	1·08
1950	36	35	97·22	1	2·77
1949	25	24	96·00	1	4·00
1948	1,619	1,613	99·62	6	0·37
1947	997	991	99·39	6	0·60
1946	165	164	99·39	1	0·60
1945	38	38	100·00	–	—
1944	1,711	1,705	99·64	6	0·35
1943 and earlier	329	327	99·39	2	0·60
TOTALS	6,946	6,914	99·53	32	0·46

The School Meals and Milk in Schools Schemes:

The percentage of school children during 1958 taking school **milk** under the above schemes 86.34

No. of dinners produced in the school kitchens during 1958 2,390,608

Average number of children taking meals daily... ... 10,204

Percentage of school children taking **dinners** in school during 1958:—

Expressed as percentage of average attendances... 44.43

No of central kitchens 4

No. of kitchen/dining rooms 19

No. of children on free meals list at 31st Dec. 1,146

IMMUNISATION

Immunisation against diphtheria and whooping cough was offered to children during their first year at school. Children who had had primary immunisation during infancy were given a reinforcing injection with diphtheria prophylactic or with combined diphtheria and whooping cough antigens, according to which agent was used in infancy. Children who had not been immunised in infancy were given a course of primary immunisation against diphtheria only, or were immunised against diphtheria and whooping cough using a combined antigen.

A total of 317 children were immunised against diphtheria, and of this number 203 received the dual antigen and therefore were immunised against whooping cough as well. Eight hundred and eleven children received a booster dose to reinforce the immunity acquired in infancy.

Poliomyelitis vaccination continued to be offered to children of school age throughout the year. Our arrangements for carrying out vaccination included visits to schools by a school medical officer so that the majority of children requiring vaccination might have this done in one half day at school. Where this was not done, the child was able to attend a poliomyelitis vaccination clinic held at the Health Department on Saturday morning. By virtue of these arrangements very little interference with the school routine took place, and over 65% of school children have now received two injections.

DENTAL HYGIENE

Report of the Principal School Dental Officer

Staff:

At the start of 1958 the professional dental staff equated to three and one-third full-time officers. At the close of 1958 this was the equivalent of four and one-third full-time officers and consisted of the Principal School Dental Officer, two full-time dental officers and four part-time dental officers working fourteen sessions a week. This is slightly in excess of half the establishment of eight full-time officers, which is regarded as the minimum for the school population of Bolton.

On the 31st October Dr. D. Davies, the Principal School Dental Officer, resigned his appointment on becoming the Principal School Dental Officer for Staffordshire. Part-time officers were appointed as follows:—

Mr. Corrigan on the 28th April, 1958
Mr. Annis on the 2nd June, 1958
Mrs. McKenna on the 26th August, 1958.

These appointments were partly offset by the resignation of a part-time officer, Mr. Thom, and Mr. J. B. Davies, part-time Dental Anaesthetist. The full-time appointment of Mr. Black on the 5th August, 1958, has strengthened the position as compared with last year.

Clinics:

The two surgeries at the Robert Galloway Clinic staffed by full-time officers remained open throughout the year. For the greater part of the year both surgeries at the Charles Street Clinic were open. After being closed down for over a year it was possible to re-open Astley Bridge Clinic on a half-time basis, but a staff resignation now makes it possible to open it for only one session a week. The Withins Clinic, closed throughout 1957, was re-opened in August for four sessions a week.

Again no progress was made towards replacing the unsuitable premises at Charles Street.

Dental Inspections:

Routine dental inspections totalled 10,389, out of a school population of 25,437. Although this figure is an improvement on last year's 6,054, it still falls far short of the desirable minimum of annual inspections for every child. Special inspections were 2,812, almost exactly the same as last year.

Treatment:

Four thousand six hundred and eighty-six patients were treated and made dentally fit, with emphasis laid on treatment giving freedom from pain, sepsis, balanced extractions where indicated, and the conservation of permanent teeth selected to preserve a healthy balanced dentition for children leaving school. It is encouraging to note that almost as many permanent teeth were saved by conservative treatment as were extracted, especially when one considers that many of the extractions were for orthodontic reasons. The amount of orthodontic treatment by appliance declined, but it is anticipated that as some of the newly-appointed officers are able to undertake this work a desirable increase in this valuable and much appreciated service will take place during the coming year.

One gold inlay, two full dentures and thirty partial dentures were fitted during the year, mostly to replace front teeth lost as a result of accidents.

General Remarks:

The dental condition of school entrants continues to be deplorable and very few children of five years of age are free from dental disease, which indeed seems universal. Preventive measures at present available have had little effect on the incidence of dental decay and only operative dentistry has any impact in counteracting the ravages of dental caries.

As far as the School Dental Service is concerned, this is tied up with the problem of dental recruitment, the difficulty of which is countrywide. In 1938 the ratio of school dentists to school children was 1 : 5,781; it is now 1 : 7,000, and as the average age of whole-time dentists is over 50 the position will rapidly deteriorate. With a rising school population and the Bolton School Dental Service at half strength there can only be a compromise with the ideal scheme of six-monthly inspection and treatment.

Why is the career of School Dental Surgeon unattractive to the young graduate ? Dental work for young children is of a specially arduous and exacting nature, and it is not generally realised that a dental surgeon is the only surgeon who operates all the time, nearly the whole of his working day being spent at the chairside. Other surgeons have only a limited number of operating sessions a week and spend much more time in examinations, consultations and the after-care of post-operative cases.

It is also very exacting to operate on conscious patients as the dentist does, apart from extractions under anaesthesia, and dental treatment of young patients is admittedly more trying than comparable operations on adults. More adequate holidays and time for outdoor recreation are very essential for the health of school dentists. These have been much curtailed in recent years.

These considerations, together with the poor career offered to full-time officers, where a young man reaches his maximum salary after ten years of service and thereafter has no prospect of advancement except for the very few senior appointments which become vacant, militate against the School Dental Service getting and retaining its share of dental manpower. Out of an increase in the Dental Register of 332, only 18 became school dentists. In view of this one must deplore the Local Authority memorandum to The Royal Commission on Doctors' and Dentists' remuneration which seems to denigrate the work and status of the public dental officer and to compare his work unfavourably with that of other dental surgeons. One would have thought that the stress laid on dentistry for the priority classes, and the importance laid on the provision of dental treatment for school children as a statutory duty, would have enhanced the importance to the Local Authorities Association of the School Dental Service. Such is not the gist of this memorandum which, in my opinion, will not aid recruitment, and which has been received with great dismay by the leaders of the dental profession generally and by the public dental officers in particular.

Non-constructive criticism is of little value and my own remedy would be to place School Dental Officers on a salary scale rising to the maximum already paid to Senior Hospital Dental Officers whose responsibilities are comparable and who enjoy an annual leave of six weeks. This, I am sure,would ensure an adequate in-flow and a worthwhile permanent career for the public dental officer.

Dental Inspection and Treatment:

(1)	Number of pupils inspected by the Authority's Dental Officers:—		
	(*a*) At Periodic Inspections ... 10,389	Total (1) ...	13,201
	(*b*) At Special Inspections 2,812		
(2)	Number found to require treatment		9,349
(3)	Number offered treatment		7,876
(4)	Number actually treated		4,686
(5)	Number of attendances made by pupils for treatment (including those recorded at heading 11 (*h*))		10,583
(6)	Number of half days devoted to—		
	(*a*) Periodic (School) Inspection 55	Total (6) ...	1,468
	(*b*) Treatment 1,413		
(7)	Fillings:		
	(*a*) Permanent Teeth 2,747	Total (7) ...	3,306
	(*b*) Temporary Teeth 559		
(8)	Number of teeth filled:		
	(*a*) Permanent Teeth 2,536	Total (8) ...	3,077
	(*b*) Temporary Teeth 541		
(9)	Extractions:		
	(*a*) Permanent Teeth 2,844	Total (9) ...	7,798
	(*b*) Temporary Teeth 4,954		
(10)	Administration of general anaesthetics for extraction		3,060
(11)	Orthodontics:		
	(*a*) Cases commenced during the year		21
	(*b*) Cases carried forward from previous year		28
	(*c*) Cases completed during the year		37
	(*d*) Cases discontinued during the year		3
	(*e*) Pupils treated with appliances		34
	(*f*) Removable appliances fitted...		31
	(*g*) Fixed appliances fitted		3
	(*h*) Total attendances		300
(12)	Number of pupils supplied with artificial teeth		31
(13)	Other operations:		
	(*a*) Permanent Teeth 3,981	Total (13) ...	5,472
	(*b*) Temporary Teeth 1,491		

INFECTIOUS DISEASES IN CHILDREN

The infectious disease with the greatest incidence was scarlet fever. Cases occurred sporadically throughout the year, and the total number of cases notified was 273. The disease continues to be mild in character and complications were few.

Only 111 cases of measles occurred as against 2,793 during 1957, the two-yearly cycle of this infectious disease being clearly demonstrated.

Only 39 cases of whooping cough occurred in children under the age of fifteen. The number of cases of whooping cough notified in children under compulsory school leaving age in the last six years is as follows:—

1954	166
1955	242
1956	305
1957	73
1958	39

Although it is premature to draw firm conclusions from these figures, it is difficult to avoid the conclusion that the marked fall in the number of cases of whooping cough in recent years has been due to the programme of immunisation against this disease.

Two cases of paralytic poliomyelitis occurred, and three cases of non-paralytic poliomyelitis were also notified. Only one case (non-paralytic) occurred in a school child.

One hundred and eighteen cases of dysentery were notified. There was no large outbreak in any school and most of the cases were amongst primary and nursery school children. The nursery schools and classes are particularly liable to be affected by this disease due to the inability of small children to wash their hands properly after a visit to the toilet and to the frequent practice of small children holding hands and the close contact they have with other children at this age.

It has been the practice to exclude cases of dysentery from school and to insist on children returning to school only when they are bacteriologically free from infection.

Eighty-nine cases of food poisoning were notified occurring in children aged fifteen and under. There were two large outbreaks of food poisoning, due to Cl. welchii, in schools in Bolton. The first outbreak occurred during April when, for several days, the weather was unusually warm. The details are as follows:—

> At approximately 5 a.m. on the morning of the 23rd April a large number of children and members of the staff of a residential school commenced to have severe abdominal pain accompanied by diarrhoea. On investigation it was found that persons who were resident at the school, and also day pupils and staff who attended daily, were also affected with the same symptoms. It became apparent that the only common article of diet which had been taken by all the affected persons was boiled mutton. This mutton had been boiled on the afternoon of the 21st April in a large pan. It was left in the pan in the liquid in which it was boiled in a warm place overnight. Without further heating it was served cold for lunch on the 22nd April.
>
> Twenty-two faecal specimens were taken from children and staff who had symptoms. Twenty of these specimens were positive for heat resistant Cl. welchii. No salmonellae or staphylococci were grown.

The mid-day meal was consumed by all affected persons at approximately 12 noon on the 22nd April. They started with symptoms at approximately 5.0 a.m. on the 23rd April. The incubation period was therefore about seventeen hours. The clinical features of abdominal pain accompanied by diarrhoea without vomiting suggest that the infection was due to Cl. welchii. The laboratory reports confirmed this, and the incubation period was in keeping with a Cl. welchii infection.

Unfortunately, at the time of the investigation, no remnant of the suspected meal could be obtained. In almost every report of outbreaks of Cl. welchii food poisoning meat has been the vehicle of infection, and commonly cold meat which has been cooked on a previous day has been responsible.

In one case, that of a domestic worker, the symptoms were so severe that she was admitted to hospital. She was seriously ill for several days and was not discharged until three weeks later.

Faecal specimens taken a week later from cases who were positive were all negative, and this suggested that the organism does not persist in the faeces.

Details of the second outbreak are as follows:—

On an evening in December a Dinner, attended by prefects, teachers and members of the Education Department, was held at a large secondary school. One hundred and nine people had the meal, and at approximately six o'clock next morning over 70 persons started to have abdominal pain and diarrhoea which was in some cases severe. Symptoms were most pronounced from about 9 a.m. onwards, and twelve children and one teacher were admitted to hospital that day in view of the severity of the symptoms.

The meal consisted of—Chicken Soup; Steak and Kidney Pie, Creamed and Roast Potatoes, Carrots, Peas; Apple Tart and Cream; Coffee; Bottled Cider and Bottled Lemonade.

Faecal specimens from 26 of the affected persons were submitted to the laboratory and 22 grew a heat resistant non-haemolytic Cl. welchii.

The catering firm which supplied the meal was in a neighbouring county borough and was investigated by the Health Department of that borough. Nothing remained of the food consumed at the meal but a meat pie baked at the same time as those eaten at the dinner, together with cream of the same batch as that consumed at the meal, were examined bacteriologically. The meat pie grew a Clostridium, but this was not a Clostridium welchii. Therefore, although bacteriological proof was not forthcoming, there does not seem to be much doubt that the outbreak was due to the meal, and there is a possibility that the meat pie was responsible.

These two outbreaks of Cl. welchii food poisoning suggest that the features of this type of food poisoning are as follows:

i. A large proportion of the people who eat the meal become affected.

ii. A large proportion of the affected persons excrete Cl. welchii in the faeces.

iii. The characteristic symptoms appear to be diarrhoea and abdominal pain, but vomiting is seldom prominent.

iv. The carrier state is of short duration, and most affected persons do not excrete the organism for more than a few days.

v. Although the symptoms are usually mild, occasionally a person is severely affected, as was the case in the first outbreak when a middle-aged woman required transfusion therapy for several days.

No case of diphtheria occurred during the year.

Incidence of Infection:

The number of cases of infectious disease each month was as follows:—

Disease	Number of Cases												Total
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	
Scarlet Fever	23	16	17	18	24	13	16	17	10	29	51	39	273
Measles	5	–	–	1	1	2	7	18	15	24	32	6	111
Whooping Cough	2	4	2	6	2	3	1	2	6	5	3	3	39
Pneumonia	4	5	1	6	3	3	–	1	–	3	2	5	33
Poliomyelitis (Paralytic)	–	–	–	–	–	–	–	–	–	–	1	1	2
Poliomyelitis (Non-Paralytic)	–	–	–	–	–	–	1	–	1	1	–	–	3
Enteric Fever (Paratyphoid B)	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery	5	27	12	3	10	19	8	5	2	3	12	12	118
Food Poisoning	6	11	7	20	7	5	2	2	5	4	2	18	89
Erysipelas	–	–	–	–	–	–	–	–	–	–	–	–	–
Diphtheria	–	–	–	–	–	–	–	–	–	–	–	–	–
Meningococcal Infection	–	–	–	–	1	–	–	–	–	–	–	–	1
Acute Encephalitis	–	–	–	1	–	–	–	–	–	–	–	–	1

Age at Infection:

The age of the children at infection is shown below:

Disease	Age																Total
	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Scarlet Fever	–	3	20	28	51	37	28	20	20	17	15	14	12	7	1	–	273
Measles	5	21	15	16	12	24	8	4	2	2	2	–	–	–	–	–	111
Whooping Cough	6	3	7	5	6	5	2	2	1	–	1	–	–	1	–	–	39
Pneumonia	7	7	2	2	5	2	2	1	–	–	–	2	1	–	1	1	33
Poliomyelitis (Paralytic)	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
Poliomyelitis (Non-Paralytic)	–	–	1	1	–	–	1	–	–	–	–	–	–	–	–	–	3
Enteric Fever (Paratyphoid B)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery	5	14	15	33	15	13	7	6	4	1	3	1	–	–	–	1	118
Food Poisoning	8	11	8	8	6	2	2	4	2	5	5	5	6	3	4	10	89
Erysipelas	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Diphtheria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Meningococcal Infection	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Acute Encephalitis	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1

REPORT ON PHYSICAL EDUCATION

The standard of physical education in 1958 has been maintained and good results were attained in its various branches. Courses in Infant and Junior Physical Education were held with large numbers attending, and the increasingly large audiences at the demonstrations held in the evenings shows the enthusiasm and interest of the teachers in this subject. Much enthusiasm is shown in games, athletics, dancing and swimming, and both special awards presented by the Humane Society for the Hundred of Salford for the Manchester and District Branch of the Royal Life Saving Society were won by a girl and boy attending the Hayward Schools.

THE WORK OF THE CHILD GUIDANCE CENTRE

Dr. Elizabeth Berndt, the Child Psychiatrist, attends at the Robert Galloway Clinic on Monday afternoon, Wednesday morning and Thursday afternoon of each week.

Dr. Berndt reports as follows:—

"During the year 70 new cases and 25 old cases were treated at the Psychiatric Department of the Child Guidance Centre. Most of the children were referred by the School Medical Officer. Others were referred by the Children's Department, the Probation Officers and Head Teachers, but only a very few by general practitioners. It is hoped that in future the family doctors will make more use of the services available at the Child Guidance Centre, for the sooner children suffering from emotional disturbances caused by environmental circumstances are sent for observation and treatment, the better is the chance to prevent their developing deeper mental disturbances or turning into juvenile delinquents.

Problems for which the children were treated included:

nervous disorders, e.g. fears, seclusiveness, obsessions;

habit disorders, e.g. speech and sleep difficulties, enuresis, encopresis, tics;

behaviour disorders, e.g. aggressiveness, temper tantrums, lying, deceit, sex problems;

educational difficulties, e.g. backwardness and inability to concentrate, juvenile delinquency.

A few cases were referred for examination by the Juvenile Court, and others with a view to placing the child in a foster home.

The average time given to each case is forty to sixty minutes, which includes frequent interviews and talks with the parents or other adult person who is responsible for the care of the child and whose active and willing co-operation is indispensable for achieving an improvement in the child. In some cases the treatment needs to be prolonged, particularly when psychotherapeutic treatment is necessary. Many weeks or months of treatment may be necessary before an improvement occurs."

Analysis of Cases:

The children seen have been classified under the following headings, according to the principal disorder present.

	Boys	Girls
Stealing	5	2
Behaviour problems	30	8
Enuresis	3	3
Insomnia	1	–
Personality disorders	3	–
General conduct	1	–
Temper tantrums...	1	–
Emotional disturbances	–	1
Enuresis and Encopresis	1	–
Anxiety state...	–	2
Nervousness	2	1
Speech and backwardness	3	–
Anti-social behaviour	1	–
Report for Juvenile Court	1	–
Lying	–	1
Totals	52	18

HANDICAPPED PUPILS

The duty of the School Health Service to ascertain handicapped school children is a very important one. Handicapped children were only ascertained as such when it was necessary to provide special educational treatment, whether this treatment was to be supplied in the ordinary school or in a special school. As far as possible children were retained in the ordinary school unless their handicap was so severe that the child's education would be prejudiced if he had not been recommended for a special school.

One medical officer was approved by the Minister of Education for the ascertainment of educationally subnormal children after attending a prescribed course in London in 1958. One medical officer who was approved retired in the latter part of the year. The total number of approved medical officers at the end of the year was five.

Ascertainment in 1958:

The following children were ascertained as in need of special educational treatment as handicapped pupils during the year:—

Blind	2
Partially Sighted	5
Deaf	1
Partially Deaf	13
Educationally Subnormal	15
Epileptic	3
Maladjusted	11
Physically Handicapped	1
Pupils suffering from Speech Defects	69
Delicate	31
TOTAL	151

Children in Special Schools:

At the end of the year there were 253 handicapped pupils receiving special educational treatment in special schools. Details are given in the following table.

HANDICAP	SPECIAL SCHOOLS	NO. OF PUPILS BOARDERS	DAY
BLIND	Henshaw's Institute for the Blind, Manchester	2	–
	Condover Hall, Shrewsbury	1	–
	Overley Hall, Wellington	1	–
	Chorleywood College, Herts	1	–
PARTIALLY SIGHTED	Chorleywood College, Herts	1	–
	Barclay School, Sunninghill, Berks	1	–
	Preston School	3	–
	St. Vincent's, Liverpool	2	–
	Corporation Park School, Blackburn	–	3
DEAF	Thomasson Memorial School, Bolton	1	10
	Burwood Park School, Surrey	1	–
PARTIALLY DEAF	Thomasson Memorial School, Bolton	2	15
DELICATE	Lostock Open Air School, Bolton	72	–

Handicap	Special Schools	No. of Pupils Boarders	Day
Physically Handicapped	Birtenshaw Hall School, Bromley Cross ...	–	11
	Burton Hill House School, Malmesbury ...	1	–
	Hatchford Park, Cobham, Surrey	1	–
	Salmons Cross, Surrey	1	–
Educationally Subnormal	Woodside School, Bolton	–	103
	Jesmond Dene House School, Newcastle-on-Tyne	1	–
	St. John's, Brighton...	1	–
	Stone Cross, Ulverston	1	–
Maladjusted	Wennington School, Wetherby, Yorks. ...	1	–
	Blue Coat School, Liverpool	2	–
	Chaigeley School, Thelwall	1	–
	St. Andrew's School, Bridgwater	1	–
	St. Ann's School, London	1	–
	Salmons Cross, Surrey	1	–
	St. Thomas More's School, Devon	4	–
Epileptic	Colthurst House School, Alderley Edge ...	2	–
	Soss Moss School, Chelford	1	–
	St. Elizabeth's School, Much Hadham... ...	3	–
	Totals	111	142
	Total	253	

Children awaiting placement in Special Schools:

The following pupils were ascertained as in need of special educational treatment, but at the end of the year arrangements for accommodation had not been completed:—

Blind	3
Partially Sighted	1
Deaf	1
Physically Handicapped	2
Educationally Subnormal	3
Maladjusted	3
Delicate	5
Total	18

Total number receiving or needing special school accommodation ... **271**

There is still a need for more day places for educationally subnormal children. There is also a need for a special class to accommodate children aged 5–7 who are causing difficulty and anxiety in school because of backwardness and who have not reached an age when they might be admitted to the Woodside Special School.

Special Schools in Bolton:

Woodside Day Special School for Educationally Subnormal Children:

The numbers of children on the roll and those admitted and discharged were as follows:—

	Boys	Girls
No. of children on the roll, Dec., 1958... ...	59	44
No. of children admitted during 1958	11	12
No. of children who left during 1958	9	9

A school medical officer who is particularly concerned with the ascertainment of educationally subnormal children and with the domiciliary care of mental defectives, visited the school at regular intervals and each pupil received a routine medical inspection during the year. This is advantageous in that the medical officer who frequently sees the child at Woodside School knows and is known by the child in after-school life.

The majority of the children who left Woodside School at the age of 16 were reported to the local health authority by the local education authority as it was felt that they might require supervision. All the children who were referred by the education authority were placed under supervision and were visited periodically by the Health Department mental health social workers.

Thomasson Memorial Day and Residential Special School for Deaf and Partially Deaf Children:

Pupils were admitted from our own and other authorities' areas. With a few exceptions, the children who lived in Bolton or nearby attended as day scholars; the remainder were resident.

The Consultant Aural Surgeon periodically visited the school and carried out 57 examinations. A school medical officer paid regular monthly visits.

The numbers of children were:—

	Boys	Girls
From the Bolton Area:		
No. of children on the roll, Dec., 1958 ...	18	10
No. of children admitted during 1958	2	–
No. of children who left during 1958	2	2
From Outside Areas:		
No. of children on the roll, Dec., 1958 ...	31	18
No. of children admitted during 1958	2	3
No. of children who left during 1958	9	2

Lostock Residential Open Air School for Delicate Children:

The general standard of nutrition in school children is now very much better than in pre-war days. Fewer children need to be admitted to the Open Air School due to malnutrition and generally poor physical condition. In spite of this, however, there are still a certain number of children who show a marked improvement in their general physical condition after two or three terms at the Open Air School where there is the open air regime and a well balanced diet. Many children attend classes regularly whilst at the school whose attendance at an ordinary school was extremely poor. Children with bronchitis and asthma seem to do very well at Lostock, and cases of asthma often dramatically improve very soon after the child is admitted. In many cases asthma is caused by emotional factors in the home which no longer operate when the child is in the environment of a residential school of this type.

Applications for admission from the Lancashire County Council continue to be received. Each application is carefully perused and a recommendation made by the Principal School Medical Officer as to whether the child is suitable for admission.

Occasionally, requests are received from other authorities and these are similarly carefully examined before the recommendation that the child be accepted or rejected is made.

A medical officer visited the school each week, and a local general practitioner cares for any children who are ill.

The following table gives details of the number of children in attendance, admitted and discharged during the year:—

	Boys	Girls
From the Bolton Area:		
No. of children on the roll, Dec., 1958 ...	32	40
No. of children admitted during 1958	18	14
No. of children discharged during 1958 ...	21	20
From Outside Areas:		
No. of children on the roll, Dec., 1958 ...	37	9
No. of children admitted during 1958	21	8
No. of children who left during 1958	21	6

An analysis of the medical conditions of the children who were in residence during the year is given below:—

Medical Condition	No. of Children Bolton	Outside Areas
Asthma	12	38
Bronchitis	8	10
Bronchiectasis	6	5
Bronchial Catarrh	–	2
Poor nutritional status	12	–
General debility	56	13
Coeliac disease	1	–
Underweight	10	3
Nervous conditions	6	–
Behaviour problems	1	–
Oxteomyelitis L tibia	–	1
Post rheumatic fever	–	1
Petit mal	1	–
Totals	113	73

Children in other Special Schools:

Bolton children who are handicapped and who attend residential schools in other parts of the country are regularly examined during the school holidays when they are at home in Bolton. This gives an opportunity to assess progress and also to decide whether attendance at a special school is still necessary, or whether the child's disability has sufficiently improved to allow him to attend an ordinary school.

Children suffering from Cerebral Palsy:

Spastic children whose spasticity is minimal and whose intelligence level is average attend an ordinary school. The majority of Bolton children whose spasticity is so disabling as to make them unfit for the ordinary school attend the Birtenshaw Hall Special School for Spastic Children, if they are educable. Admissions and discharges continue to be a responsibility of the Medical Advisory Panel which meets at the school from time to time.

Altogether there were 26 children known to the School Health Service to be suffering from cerebral palsy. The situation at the end of the year was as follows:—

	Boys	Girls
Attending Birtenshaw Hall Special School...	6	5
Awaiting admission to Residential Special School for physically handicapped	1	–
Attending special school for the deaf	1	1
Attending special school for educationally subnormal	1	1
Attending special school for maladjusted ...	–	1
Attending ordinary schools	4	2
Receiving home tuition	–	1
Not at school—pre-school children	–	2
Totals	13	13

Children unable to attend school because of Physical Disabilities:

The service of home teachers was needed for 28 children, and a total of 1,076 hours' instruction was given.

The conditions necessitating this service were as follows:—

	Boys	Girls
Spastic hemiplegia	–	1
Eye operation	1	–
Rheumatic fever	2	4
Congenital abnormality of the spine	–	1
Haemophilia	2	–
Totally inverted left foot	–	1
Still's Disease	1	–
Nephritis	–	1
Epilepsy	1	1
Congenital heart	1	3
Scoliosis	–	1
Old polio	–	1
T.B. glands neck	1	–
Chest infection	1	–
Rheumatoid arthritis	–	1
Dislocation of hips	–	1
Fibrocystic disease	1	–
Acute rheumatism	1	–
Totals	12	16

Six boys and nine girls who had suffered from the conditions mentioned below were taken off the peripatetic teachers' list.

Resumed attendance at ordinary schools:	Boys	Girls
Rheumatic fever	2	4
Nephritis	–	1
Congenital heart	–	1
Scoliosis	–	1
Old polio	–	1
Chest infection	1	–
Fibrocystic disease	1	–
Acute rheumatism	1	–
Over School Age:		
Eye operation	1	–
Epilepsy	–	1
Totals	6	9

Co-operation with the Youth Employment Service:

When a child suffering from a handicap reaches school leaving age, it may be that his handicap will produce difficulties in obtaining or keeping employment, or the Yough Employment Officers may have difficulty in recommending a suitable type of job. Accordingly, School Medical Officers give advice to the Youth Employment Officers by sending to them either Form Y.9 or Y.10, whichever is appropriate.

Form Y.9

This form was completed in respect of 79 children and was used for children who had relatively minor defects and who were not likely to need registration under the Disabled Persons (Employment) Act, 1944. The conditions for which this form was completed are given in the following table:—

	Boys	Girls
Defective colour vision	31	3
Asthma	10	1
Defective hearing	2	–
Defective vision	1	6
Occasional epileptic attacks	2	1
History of rheumatism	–	1
Long standing chest trouble	2	1
Heart condition	1	5
Eczema flexures	2	1
Eczema and Asthma	1	–
Spastic condition	–	1
Webbed fingers	–	1
Limited movement of limbs	3	1
Had operation on elbow	1	–
Lung operation	1	–
Total	57	22

FORM Y.10

This form was used when a child was likely to need registration under the Disabled Persons (Employment) Act, 1944. Such children were those who had been ascertained as severely handicapped pupils, or who suffered from some major bodily defect which would affect employment, e.g. heart disease involving considerable limitation of exercise; severe asthma; and various forms of crippling defect. The form contains a declaration by the parent that the nature of the disability may be revealed to the Youth Employment Officer. This form, therefore, was not completed unless the parent was prepared to sign the declaration. If the parent was not so prepared, Form Y.9 had to be resorted to if, at the discretion of the doctor, it was suitable to the needs of the case.

Form Y.10 was completed in respect of three children—one with congenital heart disease, one with club feet and spina bifida, and one partially sighted.

Leavers from–	Form Y.9 completed for–			Form Y.10 completed for–		
	Boys	Girls	Total	Boys	Girls	Total
Through Schools	2	–	2	–	–	–
Secondary Modern Schools ..	38	17	55	–	–	–
Technical Schools	14	2	16	1	–	1
Grammar Schools	2	3	5	–	–	–
Special School for E.S.N. ..	1	–	1	–	–	–
Residential Schools	–	–	–	–	2	2
TOTALS	57	22	79	1	2	3

Speech Therapy:

The following is a report on the work of the two speech therapists. The number of children on the waiting list at the end of the year was 64.

No. of children treated on once weekly basis	159
No. of children treated on twice weekly basis	3
No. of children receiving daily treatment	1
No. of children treated at Woodside Special School	20
No. of children admitted during the year	41
No. of children discharged as remedied	33
No. of children discharged due to poor attendance	3
No. of children unable to benefit further	6
No. of children under observation	4
No. of children interviewed in the clinic	55
No. of children who did not keep appointments	16
No. of children referred to Consultant Psychiatrist	9
No. of children referred to Educational Psychologist	2
No. of children referred to Consultant E.N.T. Surgeon	2
No. of children referred to Physiotherapist	1

Type of Defect Treated:	Boys	Girls	Total
Stammering	38	8	46
Dyslalia	49	23	72
Retarded speech	8	3	11
Dysarthria	3	–	3
Alexia, Agraphia and Apraxia	2	–	2
Hyperrhinophonia due to congenital conditions, i.e. cleft palate, paralysed palate, bifid uvula and ineffective pharyngeal closure	4	4	8
Spastic and partially sighted	1	–	1
Totals	105	38	143

Type of Defect Remedied:			
Stammering	8	4	12
Dyslalia	12	4	16
Hyperrhinophonia	1	1	2
Delayed speech development	2	–	2
Totals	23	9	32

One boy aged 11, with a serious speech defect, who had not responded satisfactorily to prolonged speech therapy in the Speech Therapy Clinic, was admitted to Moor House School, Surrey He is the only Bolton school child in this school.

A school medical officer visited the clinic on twelve occasions during the year, and examined 53 children.

The speech therapists made 34 school visits and examined 270 children Each therapist has one half day for interviews and one half day for school visits. One therapist does two sessions a week at Woodside Special School.

Other activities:

Mrs. Barber gave lectures at the Bolton Technical College to students taking the Health Visitors' Course.

She attended the Annual General Meeting of the Speech Therapists' Professional Association and also the Annual General Meeting of the College of Speech Therapists in London.

Both therapists attended meetings of the College of Speech Therapists in Leeds, Liverpool and Manchester.

Miss Jenkins resigned on the 31st August, 1958. Miss Kelly commenced as a single-handed Speech Therapist on the 1st September, 1958

Lip-Reading Classes:

Two Lip-Reading Classes were held each week at the Education Sub-Office, Mawdsley Street Two qualified teachers of the deaf were in charge of the Centre and 29 partially deaf children attended. These children were ascertained as partially deaf and needing special educational treatment.

CHILDREN INCAPABLE OF RECEIVING EDUCATION AT SCHOOL

Approved medical officers of the Authority examined 26 children who were not making progress in school and who, it was thought, might need special educational treatment. Of these, five boys and one girl were found to be incapable of receiving education at school.

No person exercised the right of appealing to the Minister of Education respecting any of these children. The children were notified to the Local Health Authority under Section 57 (3) of the Education Act, 1944.

Eleven children attending Woodside School were examined during their final term at school and found to require supervision under the provisions of Section 57 (5) of the Education Act, 1944.

One child was examined and found not to require supervision.

Children who are incapable of receiving education at school are eligible to attend the Local Health Authority's Occupation Centre, where training and supervision are available.

ADDITIONAL REPORTS

Physiotherapy:

Ultra-Violet Light Treatment:

1958 had a poor summer and in consequence ultra-violet light treatment was continued at the Health Department throughout the year. The number of children attending, 163, was substantially the same as in 1957 when 179 children attended.

The conditions for which medical officers recommended children for treatment are shown in the following table:—

Nasal catarrh / Frequent colds	53
Bronchial catarrh / Recurrent bronchitis	40
Underweight	4
General debility	61
Skin conditions	2
Asthma	3
Total	163

The treatment was given by a qualified physiotherapist.

Breathing Exercises:

The physiotherapist in the Health Department undertook the treatment of a number of children recommended for breathing exercises as follows:—

Recommended by—	Boys	Girls
Aural Surgeon	11	3
School medical officers	8	13
Totals	19	16

She also attended the Lostock Open Air School on one day each week to instruct the children in breathing exercises. A number of children with asthma and bronchitis, and also with bronchiectasis, are in the school. The physiotherapist, in addition to breathing exercises, arranged the postural drainage and percussion treatment of the children with bronchiectasis.

Mortality in School Children:

Seven children of school age died during the year. One death was due to an accident in the home when a twelve year old boy died from poisoning due to breathing coal gas. The gas escape was caused by a gas tube becoming detached from a gas fire. A boy aged 14 died from a fracture of the skull sustained when the motor car in which he was travelling as a passenger struck a lorry.

The other five deaths were due to natural causes, two—a boy aged 7 and a boy aged 13—being due to tumours; a girl aged 12 died from acute myeloid leukaemia; a boy aged 9 from hepatic cirrhosis, and a boy aged 15 from a brain abscess following a chronic ear disease.

THE CARE OF CHILDREN ATTENDING NURSERY SCHOOLS, NURSERY CLASSES AND SPECIAL SCHOOLS

Nursery Schools:

The school medical officers and school nurses attended each of the two schools at intervals throughout the year. As far as possible a weekly visit was made by the school nurse to each nursery school during the year. At one nursery school there were a few cases of dysentery which were dealt with by the usual exclusion process and insisting on bacteriological freedom from infection before allowing the child to return. There was no epidemic, but sporadic cases continued to occur for several weeks.

The following are the relevant statistics:—

Kay Street Nursery School:

No. of children on the roll, December, 1958	81
No. of children admitted during 1958	45
No. of children transferred to primary schools	13
No. of children removed by parents	9

Pikes Lane Nursery School:

No. of children on the roll, December, 1958	96
No. of children admitted during 1958	68
No. of children transferred to primary schools	46
No. of children removed by parents	11

Nursery Classes:

Medical examinations were carried out at the 34 nursery classes at which 1,013 children were in attendance. School nurses visited once a month for the purpose of general hygiene inspection.

Special Schools:

Monthly visits were paid by school medical officers to Woodside and Thomasson Memorial Schools, and weekly visits to Lostock Open Air School. The Consultant Aural Surgeon visited the Thomasson Memorial School periodically throughout the year.

Results of Periodic Medical Inspection (excluding Nursery Classes):

Defect or Disease	Nursery Schools		Special Schools	
	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation
Skin	–	4	3	4
Eyes:				
Defective vision	–	–	14	66
Squint	–	3	1	7
Other	–	1	–	3
Ears:				
Defective hearing	–	1	4	71
Otitis media	–	–	2	6
Other	–	–	3	3
Nose and Throat:				
Nasal catarrh	–	–	4	–
Tonsil and adenoid abnormalities	–	4	–	15
Speech Abnormalities	–	2	2	70
Lymphatic Glands	–	–	–	5
Heart	–	–	–	5
Lungs	1	1	2	9
Developmental:				
Hernia	1	–	1	1
Other	1	6	–	4
Orthopaedic:				
Posture	–	–	–	5
Flat feet	–	–	–	7
Other	–	1	1	22
Nervous System:				
Epilepsy	–	3	–	9
Other	–	2	–	5
Psychological:				
Development	–	–	–	16
Stability	–	–	–	12
Other Defects or Diseases	–	–	4	2
Totals	3	28	41	347

EMPLOYMENT OF CHILDREN

A total of 537 children were examined for employment outside school hours. Thirty-eight children applied for Juvenile Performers' Licences under the Employment of Children in Entertainment Rules. The type of employment was as follows:—

	No. of Children
Grocers' Assistants	4
Butchers' Assistants	4
Newspaper delivery	509
Entertainments	38
Shop or Store Assistants	15
Milk delivery	5
Total	575

All the children were passed as being medically fit for employment.

MEDICAL INSPECTION OF PUPILS ATTENDING DIRECT GRANT AND INDEPENDENT GRAMMAR SCHOOLS

School medical officers carry out routine medical inspection of pupils attending one direct grant grammar school and one independent grammar school in the borough. The following table shows the number of pupils inspected and the number found to require treatment.

Age Groups Inspected (by year of birth)	Number of pupils inspected	Pupils found to require treatment		Total individual pupils with defects
		for defective vision (excluding squint)	for other conditions	
1953	3	–	–	–
1952	16	–	–	–
1951	4	–	–	–
1950	2	–	–	–
1949	1	1	–	1
1948	2	1	–	1
1947	5	–	–	–
1946	40	4	1	5
1945	19	3	–	3
1944	3	–	–	–
1943	129	8	3	11
TOTALS ..	224	17	4	21